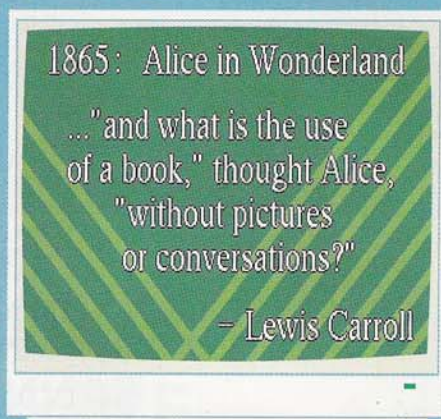
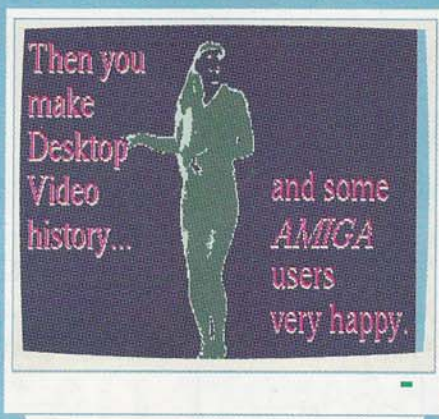
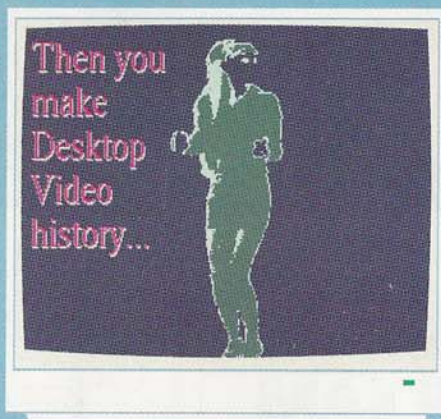
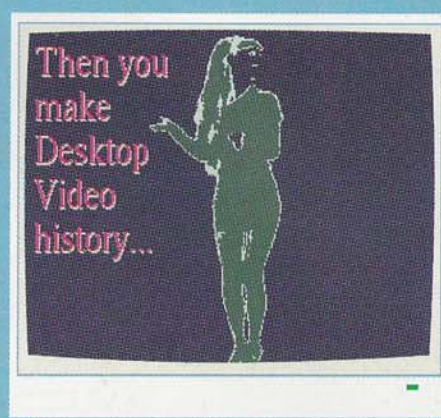
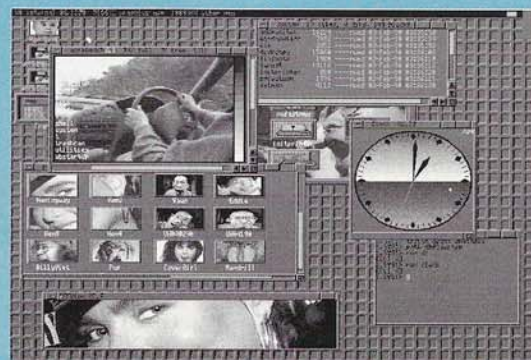


The Australian COMMODORE and AMIGA REVIEW



Showmaker and AmigaVision Multimedia Takes Off

Workbench 2.0? Real Piccies and Full Preview Inside



- ☐ Canon Ion Camera ☐ Superbase 3.0 for the C128
☐ Tiger Cub ☐ Paperclip Publisher ☐ C64 Maze Program
☐ Geos Column ☐ Latest Games



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The Australian COMMODORE and Amiga Review

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This much improved version of Draw is a must for serious object orientated drawing for use in Desktop applications.

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The hugely successful follow up to Tetris is now available on Amiga. This time you drop odd shapes into a well. Just as addictive as Tetris but more involved.

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LEADERS IN PC ENTERTAINMENT
Dealer enquiries welcome

Editorial

IF YOU'RE reading this before July 7th, you still have time to head to the Sydney showground and check out one of the most exciting Commodore stands for some time - part of the Sound and Vision Show. If not, like most Commodore users around Australia, you'll just have to keep hoping Commodore have another World of Commodore or even an Ami-Expo in Australia real soon.



As predicted at the start of this year, 1990 is shaping up as a very significant year for Commodore. This month sees the launch of AmigaVision, the Amiga 3000, a number of new peripherals and significant third party products such as Gold Disk's *Professional Draw 2.0* and *Showmaker*. More importantly than anything, the *Australian Commodore and Amiga Review* got a sneak preview of *Showmaker* and *AmigaVision* - that write-up is in this issue.

Alexander Lambert is still trying to get by without a Canon still video camera - and Eric Holroyd has decided his C128 will stay in service for a good while yet thanks to the latest version of *Superbase 128*.

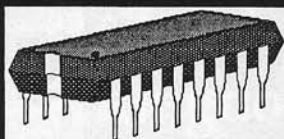
Our new GEOS column continues, as does part two of Andrew Leniart's CLI tutorial - many thanks to all those who requested we run such a column. And of course, Greg Perry's guide to sound and graphics on the C64 is still rolling along at a merry pace.

We've had lots of feedback on our recent Ram Rumbles story about retailers. It seems consumer unrest with regard to pricing is still an issue. Also in the news again is the might storm over software licensing and distribution agreements in relation to alleged "grey marketing" of products. Whilst we have remained neutral over this little hot potato, it seems to the time is coming when the legal situation will be much clearer.

It seems ironic that the one distributor who has received the brunt of allegations regarding grey marketing is also the distributor who quite legitimately imports and distributes some of the most significant products available for the Amiga today. □

Andrew Farrell

Ram Rumbles



Commodore out to improve relations with developers

● Australian developers often complain of being out in the cold when it comes to support. However, that situation is changing, and here at ACAR we have even received press information that we hadn't got from elsewhere!

Commodore Applications and Technical Support (or CATS) is responsible for keeping the Commodore show running on a technical level throughout the world. They produce Commodore Computer manuals and documentation. Their most recent effort was the 995 page Amiga ROM Kernel Reference Manual - an in-depth explanation of the powerful graphics, animation, text, math and audio routines that make up the Amiga's ROM.

Locally, there isn't a CATS equivalent. So what's to be done? Jeff R. Scherb has joined Commodore USA as Vice President of CATS. With extensive international experience, Scherb will be based at Commodore's West Chester (USA) headquarters and will be responsible for managing world-wide activities with Amiga Software Developers.

From here on, Australian and New Zealand software developers interested in dealing with CATS can get in touch with them through local offices. We would love to hear from developers who give this a go.

Press information from legal beagles

● As the great battle to save our planet continues, the senseless waste of paper sent to hundreds of publication editors containing meaningless press releases continues. We get wads of information from people that wouldn't have the faintest relationship to home computing, Commodore equipment, or anything else in this magazine. So, in case you've ever wished you were the editor, here's a sample of some of the press information that crosses our desks:

SHRINK-WRAP POSES PROBLEMS

Continuing developments in off-the-shelf software products are increasing the chances of software houses being sued

for damages, according to a leading computer lawyer Ms Linda Vogel. Ms Vogel, a senior associate with corporate law firm Clayton Utz, said that among the "problem" developments was shrink-wrap licensing. "The popularity of shrink-wrap packaging makes it difficult for software houses to ensure that their licence terms are binding on end users," Ms Vogel said.

"There is little opportunity for the software house to insist that a customer signs a licence agreement before buying the product," she said. "Consequently, the software house may not be able to rely on any terms in the licence agreement which exclude it from liability, particularly in relation to claims of negligence or claims under the Trade Practices Act which may be brought against it by the end user."

"Software houses are in something of a Catch-22 situation," Ms Vogel said. "They cannot ignore the market demand for 'tear me open' products, and their risks of being sued increase as they sell more product," she said.

"Mail order and off-the-shelf software sales have effectively put an end to computer houses having direct dealings with many of the people who buy their products," she said.

According to Clayton Utz, some software houses have tried to overcome this problem by encouraging customers to accept the terms of the licence agreement by completing and signing a warranty card.

"This method could be self-defeating," Ms Vogel said. "The courts may decide that a binding contract exists only when the warranty card has been returned, and not everyone fills in warranty cards. People who do not, may well have no contractual relationship with the software house. Both software houses and end users face a most unsatisfactory situation legally."

"In the common situation where shrink-wrap software is distributed by a dealer appointed by the software house, the dealership arrangement should be structured so that the licence granted to the dealer is subsequently assigned to the customer. This would be done in conjunction with a waiver so that there would be no requirement for the dealer to notify the software house that the assignment had occurred."

"Without protection of this sort, software houses are exposing themselves un-

Update

Once again, Max is overseas, hunting out the latest and greatest titles for your computer. In his absence, Pactronics are very pleased to announce several hot new programs and products.

Max last month mentioned the Cameron Hand Scanner for the Amiga. What he neglected to highlight was the O.C.R (Optical Character Recognition) software supplied with the Type 10 Black and White scanner. This software can convert a scanned image into an ASCII file ready for use in your word processor or Desktop Publisher. We have easily achieved accuracy of over 95%, EVEN ON AMIGA GRAPHIC FONTS!!

Brand new for the Amiga is the fantastic ACTION REPLAY. That's right, ACTION REPLAY FOR THE AMIGA. In an easy to install cartridge, the ACTION REPLAY provides untold features, SCREEN GRABBER, SCREEN MODIFIER, MEMORY GRABBER, MACHINE CODE MONITOR and much, much more. If you're into your Amiga, then you should be into the ACTION REPLAY for the Amiga.

I would like to add a brief reminder about the FINAL CARTRIDGE III for the Commodore 64. Not only does it provide a FIFTEEN times improvement in disk loading and saving time, it also provides a Centronics printer interface, screen dumping and pull down menus from Basic.

By the time you read this column, AMOS, the brilliantly fantastic programming language for the Amiga should be available in ALL stores. This program is a killer!! Check out our ad in this issue for just some of the features.

In the last issue, our toll free number was incorrectly printed. The correct number is 008-227-465. □

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ImageLab - Full image processing capabilities from simple averaging to Fast Fourier Transformations. Extensive documentation on disk. Works in many resolutions - fantastic effects possible.

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necessarily to what could be substantial claims for damages," she said. *

(Did you get all that? Yes? Well, you can write and explain how that affects all those nasty shrink-wrapped products for the Amiga! - Ed)

FEDERAL COURT PUNISHES

PIRATE - Damages awarded to two computer companies by the Federal Court last month underline the seriousness with which judges view the infringement of copyright, according to computer lawyer Ms Anna Sharpe.

The case involved a Sydney hardware and software supplier Mr Charles Cheung against whom legal action was taken by Autodesk Australia Pty Ltd and Autodesk Inc of the United States. The companies had alleged that Mr. Cheung offered to supply customers with free, pirated copies of whatever software programs they wanted if they purchased his hardware.

Mr Justice Wilcox awarded the two companies compensatory damages totalling \$15,000 for loss of sales, and additional punitive damages of \$35,000. Ms Sharpe, a senior associate with corporate law firm Clayton Utz, said that the awarding of punitive damages was unusual.

"Such damages are awarded when a court wishes to punish an offender and deter others who may be tempted to copy his actions," Ms Sharpe said. "In awarding such substantial punitive damages, Mr Justice Wilcox has made it clear that the Federal Court views seriously any copyright infringement."

Ms Sharpe said that in addition to providing a warning to the computer industry's "bad elements", the decision should also provide comfort to those companies which fall victim to pirating activities.

"Companies which take the appropriate legal action promptly and in a carefully planned manner will find that the courts view their cases sympathetically", Ms Sharpe said. *

(This press release, from the same people as the previous one, makes a lot more sense. So, don't sell pirated disks to anyone from Clayton Utz, OK? - Ed) ☐

Our new magazine
Professional Amiga User
will be on sale in July
from newsagents and
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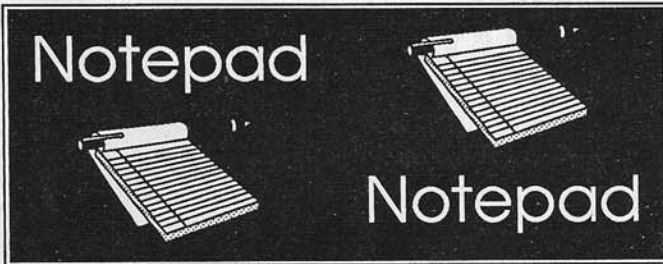
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Commodore launch Amiga 3000

● The stunning new Amiga 3000 has officially been launched in Australia. Commodore are pushing it as a powerful Graphic Workstation and Multimedia Tool. A fair angle for a machine which combines the performance of top-end workstations at a price normally associated with personal computer terminals. Recommended retail price for the 16mhz version will be around \$6000.

Its pedigree is founded on well established Amiga technology which features a custom designed chip set to handle video, graphics and sound. This is combined with a powerful Motorola 68030 processor and 68880 series maths co-processor to offer full multi-tasking capability. Furthermore, this processing power provides the ideal solution to corporate computing applications for personal and networked requirements.

Commodore's new *AmigaVision* multimedia software provides the perfect, icon driven environment ideal for business presentations and video applications.

For those of you who know it's safe to read these specifications without wanting to sell the car so you can afford one, here they are:

Pro/Motion

● Oxix has released a motion creation system for *VideoScape*. With *Pro/Motion* users will now be able to create motions for *VideoScape 3D* in an interactive graphic environment, eliminating the need to manually type in animation co-ordinates using a CLI editor and graph paper.

The program will be sold separately for a suggested retail price of \$119 US and will also ship with *VideoScape 3D* at no charge for an unspecified

period of time. Registered users of *VideoScape 3D* can upgrade to *Pro/Motion* directly from Oxix for \$74.95(US) or order the product from most Amiga dealers.

Previous to *Pro/Motion*, users creating animations with *VideoScape 3D* would have to manually type in the X, Y, and Z co-ordinates of the camera motion (user's viewpoint) and the object motion in the animation. This process was not only tedious, but required the user to exit *VideoScape* and use

Commodore Amiga 3000 Specifications

Microprocessor - Motorola 68030 16MHz with 68881 FPU or 25MHz with 68882 FPU

Memory - 1Mb access to RAM 32 bit DMA based onboard SCSI controller

Cabinet - Low profile case supporting total of 3 internal 3.5 inch drives (two accessible externally) and featuring small footprint.

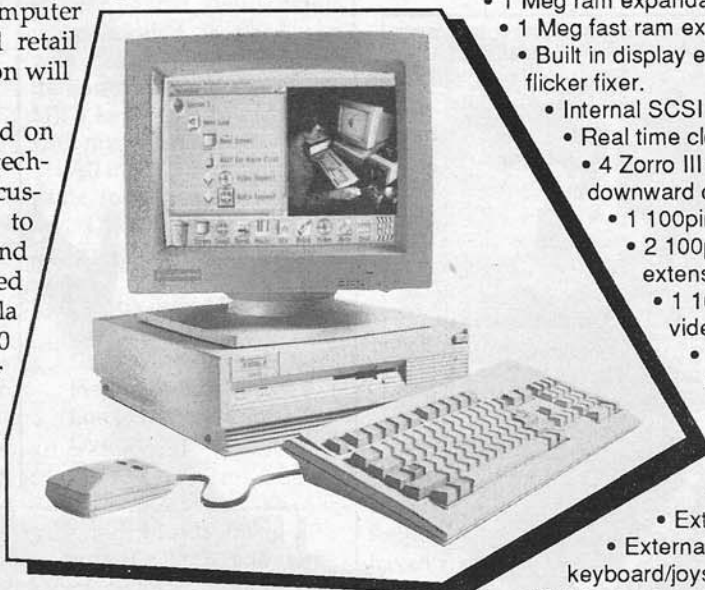
Model Numbers - Commodore Amiga 3000-16-40 (16MHz with 40Mb HD)

Commodore Amiga 3000-25-40 (25MHz with 40Mb HD)

Commodore Amiga 3000-25-100(25MHz with 100Mb HD)

In detail

- 68030/881 @ 16Mhz or 030/882 @ 25Mhz
- Amiga Enhanced Chip Set
 - 1 Meg ram expandable to 2 Mb on board
 - 1 Meg fast ram expandable to 4 Mb on board
 - Built in display enhancer - equivalent to current flicker fixer.
- Internal SCSI controller and disk
- Real time clock
- 4 Zorro III expansion slots each downward compat with Zorro II cards
 - 1 100pin only slot
 - 2 100pin slots w AT style extensions
 - 1 100 pin inline w A200 style video slot
 - 1 CPU expansion connector
 - 200 pins with processor takeover capability
 - External connectors
 - 23 pin Amiga Video
 - 15 pin VGA
 - External SCSI
 - External floppy/serial/parallel/audio/keyboard/joysticks
- 32 bit access to on board ram
- 32 bit CPU access to chip ram
- 32 bit fast ram support custom controller supporting static column mode Drams and allowing CPU burst access.
- 32 bit DMA based onboard controller
- Low-profile case supporting total of 3 3.5 inch internal drives
- Front mounted power switch



a text editor.

Now, with *Pro/Motion*, you can create all the motions for an animation using a simple graphic environment. For instance, to show a jet aircraft landing on a runway, the user merely draws a line from the starting point of the jet to the ending point and then renders the animation using *VideoScape*.

Pro/Motion also adds features not available in *VideoScape* such as object shadows, magnetism (an object can at-

tract or repel another object), gravity, and wind. The program includes full manipulation of light sources, camera attributes, bank and pitch settings, plus built-in error checking.

Oxix have hinted a future version of the program will appear which will add "features altogether unknown to today's animator".

VideoTitrer

● A new version of *VideoTitrer*, Version 1.5, to feature

3D text manipulation, built-in animation facilities and a re-designed user interface, has been released. Additionally, the program now ships with *Lights!Camera!Action!* at no charge - \$89.95US value. The program will sell at \$169.95US.

Registered users of the current version 1.1 or previous versions may upgrade directly from Oxix for \$34.95 (US).

Oxix are making a concerted effort to upgrade the entire Aegis range which they took over last autumn. The enhanced version comes at a time when the focus of professional quality multi-media applications for the Amiga is increasing, with Commodore Business Machines, Inc. putting a substantial effort into promoting the Amiga as a multi-media computer.

3D text manipulation is achieved by the addition of several new 3D "handles", allowing text to be stretched into various 3D perspectives. Additionally, the program has a new feature, "Extrude", which will extrude the text so that it has the appearance of a solid object. At this time, 3D effects are only supported on the program's "Poly-Fonts", a set of built-in fonts that take on the properties of objects and can be stretched, spun, rotated or distorted.

New built-in animation facilities allow the user to create complex text animation within the program. Previously, a limited set of animation facilities were available to the user through the use of VSEG, a separate program that provided the ability for text scrolls, wipes, fades and some other effects. Now, the user can create animations with unlimited creativity - a piece of text can spin, circle, and change colours in any direction and length.

Animations are created using "key-frame" animation, where a starting and ending point of an animation are specified by the user, and the program creates all the in-

between animation.

Finally, *VideoTitr* now enjoys a greatly enhanced user interface. With previous versions of the programs, users were limited to using function keys to change a font from one style to another. The new version completely supports a menu-driven interface, with the addition of an on-screen "ToolBox", giving the user instant access to a variety of commands without having to use pull-down menus.

Townsville Amiga City

● A new business dealing exclusively with products for the Amiga has opened in Townsville, called Amiga City. Ian Granshaw, proprietor of Amiga City, has been authorised to distribute various products including Clip Art (Tangent 270), Mac-2-Dos, Dos-2-Dos, Quarterback (Central Coast Software), Mean 18 Golf Course Data Disks (Moonlight Development), Dual Serial Board (ASDG Inc). Also various software by Micro Momentum and Silver Software.

Along with a selection of Memory Expansion devices and hard drives, a selected range of other software titles are being considered for distribution.

Contact Ian Granshaw on (077) 72 3372 or write to him at Box 6069, Townsville Mail Centre 4810.

AmTrac - a trackball instead of a mouse!

● Amtrac is yet another mouse alternative for Amiga users. Point and select just as you would with your mouse, while only using one third the space. High precision and quick motion all at once. No more "row, row, row the mouse" when you run out of desk space before you run out of screen. The makers promise this alternative is quiet, and has a durable optomechanical

design for trouble free performance. It requires no cleaning as well as being easy to install. Unplug the mouse and plug in AmTrac. Distributed in Australia by Computermate Products. (02) 457 8388. RRP \$169.00.

dBMan V - real database power

● dBase freaks and database programmers currently putting up with *Superbase* will love *dBMan V*. This fully dBase compatible product for the Amiga offers superior database management, report printing and program development in one package.

At the database management level, *dBMan V* allows you to structure, enter, retrieve, and modify data. In the office, *dBMan V* can be programmed to manage your entire business including inventory control, payroll, invoicing and billing. At home, *dBMan V* can keep track of your recipes, address book, video tape library, and more.

At the report printing level, *dBMan V* has a built-in fully relational report writer that allows you to create reports in a flash with absolutely no programming. Report layouts are

designed by placing fields at the desired locations on the screen. This can easily be accomplished with the built-in cut, paste, and copy functions. The finished screen layout reflects the printed output. From simple personal reports like recipe cards, mailing list, and video tape libraries to complex business reports like inventory count sheets packing lists, employee payroll reports and customer billing statements can be easily created.

At the program development level *dBMan V* is the only database manager for the Commodore Amiga that is compatible with *dBase III Plus* language. With this awesome programming power, you can develop and customize any programs to fill your home and business needs. For your office, customise a complete accounting system to fit your business needs.

Also included with *dBMan V* is the high performance *Greased Lightning* compiler. This compiler fully supports macros, and executes dBase programs up to 16 times faster than *dBase III Plus*. Unlimited Runtime Distribution is available. By VeraSoft, distributed

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HAM it Up!

● The definitive colour reference guide displays and prints all 4096 Amiga colours. Prints on any Amiga compatible colour printer. An invaluable aid in achieving smooth blends in most Amiga paint programs and includes tutorials. Avoid "fringing" effects in creating backgrounds for video animations. DTP artists avoid hours of frustrating and costly colour matching experiments. No HAM paint program required to view or print. Easy to install on your hard drive with sixteen HAM charts of 256 colour each, RGB values given for each colour, includes the SuperBitmap "SuperBlue". Requires Amiga with at least 1 meg Ram. SuperBlue requires 1 meg Agnus chip to view and a SuperBitmap HAM paint program to print.

Saxon Publisher

● *Saxon Publisher* is a professional desktop publishing program created specifically for the Amiga. Its unique design and extensive capabilities are sent to provide users with a powerful tool for creating documents with a minimum input of time and energy.

In the past, developers have pushed forward the concept of the "blank page" as the desktop publishing ideal - a sort of magic canvas on which objects could be arbitrarily placed. Although it mimics mechanical publishing methods, this idea is inconsistent with modern computing techniques and ignores many of the benefits that a computerized system can offer.

Saxon Publisher is based on a more structured system of style and text tagging, in which elements of a document are given identifying names which can be stored for later retrieval. When creating a new document, you can draw on any work that you've done be-

fore, and can reformat entire paragraphs with a click of the mouse button. Every time you create something new - a new headline style, for example - simply give it a name.

The next time you need a headline formatted in the same way, simply click on that name. Your new headline instantly assumes the proper font, size and position. You can also recall boxes, tags, text, bitmaps and structured drawings used in other documents. This tagging system greatly increases efficiency, and eliminates the need to create everything from scratch.

In addition to a full complement of standard desktop publishing features, *Saxon Publisher* also offers many advanced features not available anywhere else. Non-rectangular text boxes, the ability to make text flow around irregularly shaped objects, professional four colour separations with full trapping and undercolour removal, and algorithmic bitmapped textures for text and structured drawings are a few examples. Requires 1 meg, two drives, extra memory recommended. Available soon from Computermate (02) 457 8388.

Turbo Silver ModulePack

● These new and improved *Turbo Silver Converters* understand both *Turbo Silver* file formats. Exchange *Turbo Silver* objects with *Sculpt 3D* and *4D*, *VideoScape 3D 1.0* and *2.0*, *Forms in Flight*, *Aegis Draw* and *Professional Draw* (some modules sold separately).

Plus four more modules that work with Interchange:

Get the best results from your ray tracer. This tool improves the appearance of smoothed objects by removing extra points and can significantly reduce an object's file size.

● Clean up an object by aligning points to a grid. Gridsnap is great for reducing the number of polygons in an ob-

ject to shorten rendering times and quickly simplify objects that will be viewed at a great distance.

● Make an object longer, wider, bigger or smaller. This tool displays the object's bounding box and size. You can move objects to new locations and resize them to fit a certain space.

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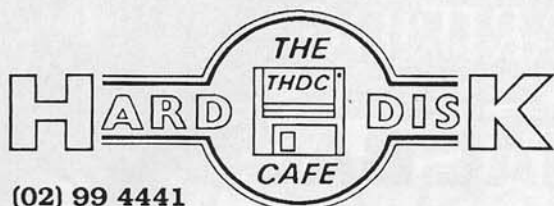


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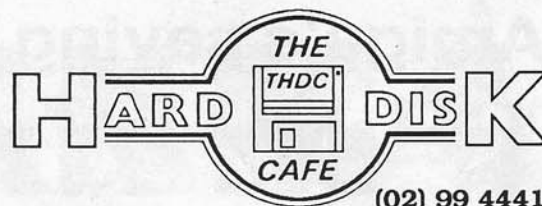
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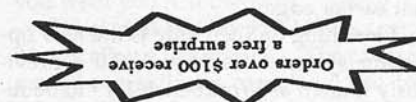
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Amiga's saving grace *Workbench 2.0*

by Andrew Farrell

WORKBENCH 1.4 is too great a leap to be called anything less than Workbench 2.0. Please note, Workbench 2.0 will not be released for several months yet. This preview is based on the Beta version only.

After five years enjoying a relatively unchallenged lead in areas such as animation, graphics and video, the Amiga is now surrounded by beefed-up PC clones, and new colourful Apple Macs, boasting similar specifications and capabilities. The unique gap once enjoyed by Commodore is fast disappearing. Over the following six months, various pieces of hardware and software will arrive, both from Commodore and third party developers. These products will help win back that earlier edge.

One thing on their side is the new operating system, Workbench 2.0 - previously known as Workbench 1.4 - to be released in the last half of this year. Unlike previous upgrades which contained few cosmetic changes and only a handful of

new features, Workbench 2.0 gives the Amiga a completely new look and feel. There are also some very significant improvements to the system's power and speed.

What you'll probably get

- Workbench 2.0 is bigger - you can expect at least three disks worth of tools, fonts, extras and operating system. Kickstart is back on disk - although it will eventually reappear in ROM. This is a necessary step to handle the odd program which will not yet run under 2.0, although developers and software publishers are working fast to fix anything which doesn't work.

At this stage the blame for incompatibility must be split around 80% on the heads of developers and the balance on unexpected changes by Commodore, the phase of the moon, and not holding your tongue right. To put your mind at rest,

most of what we tried with Workbench 2.0 works fine.

The release which arrives with the Amiga 3000 will be fairly similar to everything in this preview - however existing A500 and A2000 owners may find that the final version is a little different. It is possible that both cosmetic changes and operating differences may still appear.

Hopefully a whole new Workbench manual will be written. If not, the addendum to the 1.3 upgrade, which in itself is an addendum to the 1.2 manual, will be too large to be seriously considered a friendly end user guide.

Installation

- No tricks to this one - unless you want both versions available from the same hard drive, in which case you'll need to spend a bit of time fiddling with your startup-sequence. Having installed 2.0 on your work disks or hard drive, you'll have only one big job ahead of you - selecting how you want your screen to look. Apart from that, replacing your old version is fairly simple. Hard disk users don't have to reformat, although you do have to make some small changes to your mountlist.

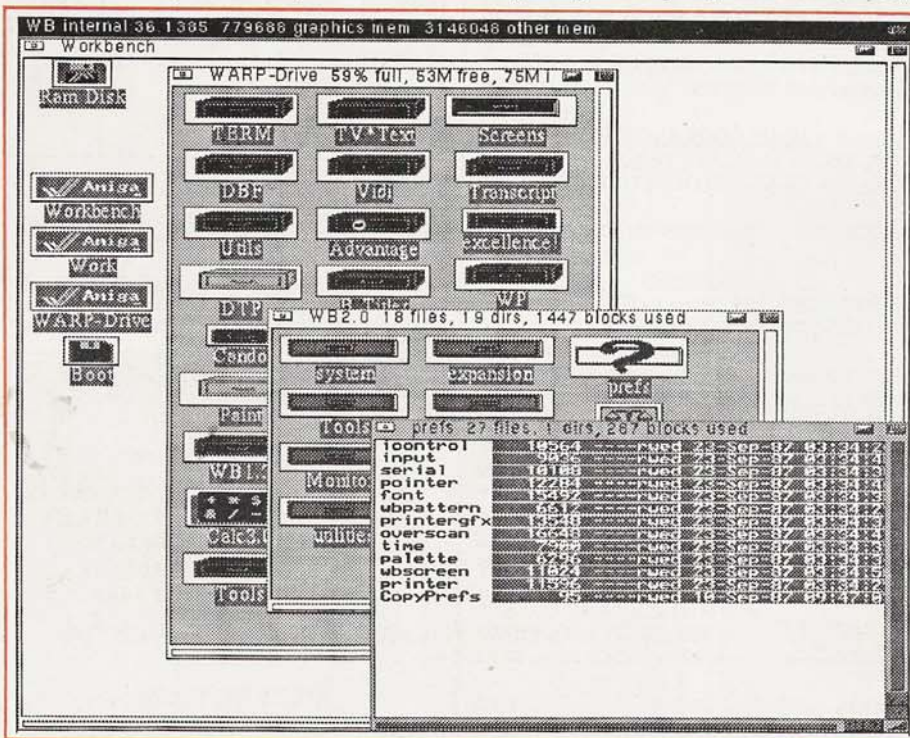
An example file to boot from either 2.0 or 1.3 from hard disk is included, and works fine. A3000 owners can do the same from an autoboot menu which starts up automatically.

One thing for certain, you will find it difficult to fit everything on one disk. There is less junk, and more important utilities and files. BASIC is gone - at least it wasn't present on the Beta version.

On the Workbench

- Once you've booted up, the differences will be obvious, although initially they will appear purely cosmetic. On the familiar Workbench screen, you'll find new icons, new windows, new gadgets, and improved tools and menus.

Workbench now opens in its own window - which can be dispensed with if you require. Any application which



opens on Workbench can be sized down with the rest of the bench using the new shrink gadget located at the top left of each window - just next to the front/back gadget. However, any open disks remain separate. This is a very handy way of quickly tidying up.

Each icon has a small border around it which helps keep everything looking neat when you introduce patterns in the windows and workbench. Text below icons also has small background panels whose colour can be varied. The font itself may also be changed to any font you desire. Fonts in the pull-down system menus can also be altered, as well as the system fonts, which can be changed to any non-proportional font. All this happens using one of the various preference programs.

No longer is the Workbench user kept in the dark when it comes to files without icons. Each drawer can selectively display all files as icons or file names, in either file name, file size or creation date order. Files without icons, and directories without icons, can have icons generated for them temporarily revealing all.

Ability to customise

● Overall, Version 2.0 is a lot slicker looking environment than 1.3. The windows, pull down menus and screen gadgets have a far more polished look. You can customise just about everything. By adjusting the standard sludgy Topaz 11 point to a smarter Helvetica 13 below icons and Times 12 in system menus, the screen takes on a complete different feel.

Add to that the ability to define separate colours and fill patterns in both the main Workbench screen area and each open window, plus the usual Amiga ability of customising icons, and you have one of the most fluid user interfaces in the whole "WIMPy" world.

Indeed, that very feature is currently the greatest bane of Workbench 2.0. Adjusting all these preferences is handled by a whole swag of independent programs. At this time there is no return to default option. As a result, the inexperienced user or the crazed experimenter can make quite a mess of the standard settings. This includes some of the more sensitive options such as screen sizes, monitor selection and communication protocols. Hopefully, Commodore will address this problem.

In the colour department, Workbench can now be two, four, eight or sixteen colours. We noticed some icons tended to mess up once you go above four.

Small improvements

● There are a number of small improvements which really make a wonderful difference, things which show Commodore has really thought the improvements out. For example, if you resize a CLI window, the text inside automatically reformats to fit the new size. Using the CLI is now faster, as many more commands are resident - more like MS-DOS.

The Fast File System is built into the ROM, and it is a tad faster. File Locking is supported for multi-user environments. You can view files and directories even if they have no attached icon visible - a fake icon is temporarily produced. Many other public domain type utility functions have been added.

Fonts

● Lots of improvements in this area will spell disaster for some programs. Although the old format is still supported, a larger variety of fonts can now appear in a larger number of places. For some pull-down menus this tends to mess up the formatting - something which is no doubt being addressed now by software publishers - will we see a rush of new versions over coming months?

Topaz is now sans serif and looks much smarter. Bit-mapped fonts may be rescaled to any size - a very powerful fa-

cility, but still way-short of the true outline fonts used by Gold Disk. However, a post-2.0 release with this feature added may happen.

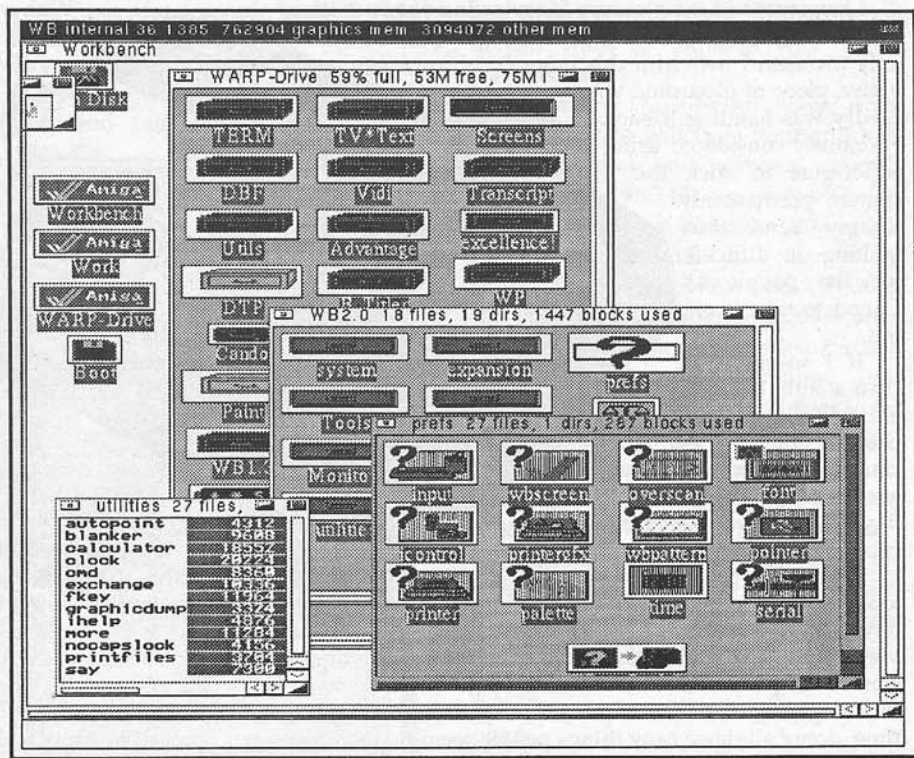
CLI/Shell

● Although almost a thing of the past - you can do anything the CLI can do from Workbench (almost), the CLI has improved immensely. Many more commands are built-in or resident (no longer in C:). The commands have been rewritten (ARP style), improved and made faster. A total overhaul!

CON: is better - it now defaults to a character-mapped display. The superbmap console now has cursor (bug fixed). and there's better editing with the option of full-screen PET style editing - a feature sorely missed by C64er's.

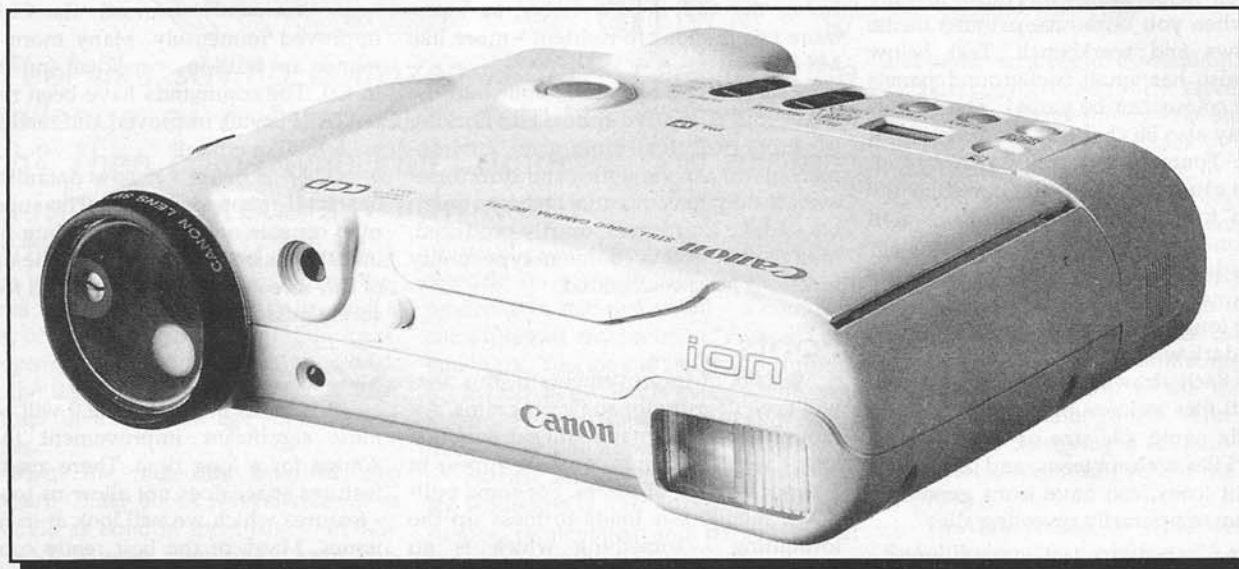
Conclusions

● It looks like version 2.0 will be the most significant improvement to the Amiga for a long time. There are many features space does not allow us to cover - features which we will look at in future issues. Many of the best really come to the fore when you have the new Enhanced Chip Set. Upgrade prices and availability are still up in the air - for a closer look at 2.0 head down to your nearest dealer the moment the A3000 arrives in stock and check it out! □



Let's get digital ... The Canon ION Camera

by Alexander Lambert



1990 IS SHAPING up to be a very exciting year for new developments in electronic gadgetry. New consumer products are appearing on the market regularly and some of the new gadgets are clever in their design as well as being very practical.

I have just had the pleasure of reviewing one such item, the all new Canon Still Video Camera. The only problem I had with this innovative piece of electronic wizardry was handing it back. I seriously considered using super-glue to stick the camera permanently to my hand thus making it difficult for the people at Canon to take it off me.

If I sound more than a little excited and enthusiastic about this new product, then believe it, because the pennies are already going into the piggy-bank for the day when I have saved enough to bring one home.

What's all the excitement about? Well look at it this way, if you could go out for the day, to the beach or zoo with a camera, then come home and view all the lovely pictures you have just taken on your television or computer monitor - that's exciting.

Imagine yourself at a party, everyone is having a great time, doing all those zany things people seem to do after a few

beers and a good meal. You are having a great time too, snapping off pictures with your new camera, capturing all your friends in the act of enjoying themselves. Some of those shots are real rippers, but you don't have to wait to get your film developed before you can show them around.

With your new Ion camera there is no need to wait, just invite everyone to sit in front of the TV, connect a cable from the camera and 'hey-presto', there's uncle Fred on the TV screen in vibrant living colour.

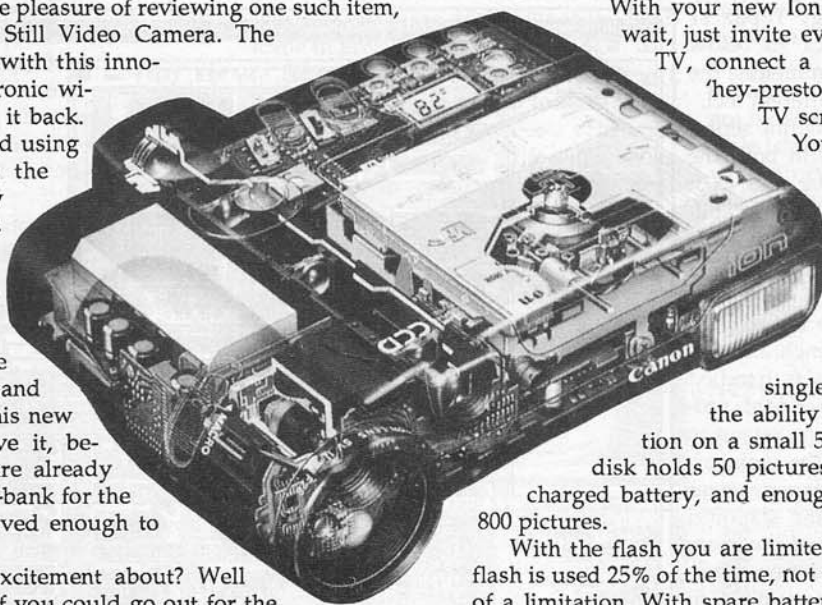
You have caught him in the act, and captured his image on a small floppy disk for posterity.

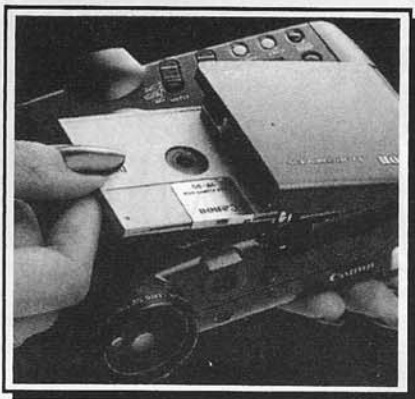
That's right! A small floppy disk, not unlike the disks you use with your Amiga. The Canon Ion camera(tm) is a digital

single frame video camera with the ability to store the image information on a small 54 x 60mm floppy disk. Each disk holds 50 pictures or frames, and with a fully charged battery, and enough disks, you can take up to 800 pictures.

With the flash you are limited to 250 or 300 frames if the flash is used 25% of the time, not that I would call that any sort of a limitation. With spare batteries and spare disks you can take as many photos as you like.

Once you have your 50 frames or pictures you can transfer the pictures to video tape via your VCR for a picture slide show. Some videos have a microphone input so you can add your own commentary onto the tape to complement the film.





The floppies can then be erased and made ready for more pictures.

If at any time you make a mistake with your composition or you feel the picture is not quite what you wanted, the camera's controls will allow the operator to select any particular frame to be deleted and then re-take the photo. At a recommended retail price of \$14.50 for each floppy disk, it makes the taking of pictures quite inexpensive. There are no developing costs, or any other form of hardware need, just your camera, battery and floppy disk.

Uses for this camera are limited only by the operator's imagination. An example that springs to mind is its use in a photographic school. The student can compose a picture and the teacher is then able to show that picture on screen for immediate constructive criticism.

Or with the camera's ability to fire three frames per second it would be a great help for golfers to look at their swing, and pick out their problem areas. For the Amiga owner with a good quality frame grabber, or *Digiview Gold* and a colour splitter, the image can be captured and stored as an IFF file for use with a paint program or in desktop publishing.

All the pictures I looked at were displayed on an Amiga monitor and I have no quibbles at all with the picture quality. The Ion's digital format will never replace chemical film developing, but for the majority of us snap shooters, the resulting photos are more than adequate for our needs.

With Canon's new colour copiers the Ion camera can output its information from the floppy disk into the copier and a hard copy of any selected picture is produced in a matter of minutes. The people at Canon assure me that this 'hard copy service' will be expanded, so the owner of an Ion camera will have little difficulty in finding somebody to make a hard copy of their masterpiece.

At the moment the little camera comes with a fixed focus lens and an optional teleconverter for that long distance shot. But I can see the possibility of a more pretentious model with a zoom, or even interchangeable lenses being available some time in the future.

At a recommended retail price of \$1200, the future looks very bright for this little camera. I would suggest you head for your local computer shop or camera outlet and check one out. If you can't find an **Ion RC-251** in any local shops, then ring **Canon Australia** for a brochure, they will be glad to hear from you. Call (02) 887 0166. □

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Superbase 128 v3.01

by Eric Holroyd

AS REGULAR READERS of my ramblings realise (now there's a nice bit of aliteration to start off with!) I am a dedicated C-128 user. I find it a very easy machine to use and have always felt a little disappointed at the lack of support Commodore provided for it. They seemed to lose interest rapidly once they became committed to the Amiga. Nevertheless, other companies have continued to support it by providing good software and I have a feeling that it'll be around for a long time to come. Mine certainly will.

Continuing support for the C-128 is provided by an organisation in the USA run by Loren Lovhaug. This company is lobbying Commodore to allow them to supply 128 product that Commodore is no longer interested in supplying. They publish a magazine specific to the C-128 known as *Twin Cities 128*. I got their number 26 and enjoyed it. It's a 26 page mag with lots to interest 128 owners and they make mention of "their new C-128 book - 500 C128 Questions Answered". That leads me to think that they've published C-128 books previously. Contact details are: Twin Cities 128, PO Box 11578, Minneapolis, MN 55411, USA.

As most readers will know, the C-128 is really "three computers in one" - it has three modes: C-64, C-128, and CP/M. Many of these fine computers were bought by gamers who used them mainly in C-64 mode and never got around to using it in the more powerful C-128 mode. Every week there are real bargains in the *Trading Post* and other newspapers from these owners who have obviously "traded up" to the Amiga so there's a great opportunity to get a good little "home office" computer system quite cheaply.

My own "home office" system is a C-128D with an extra 1571 drive coupled to a Star NX-10 printer via a Xetec Super Graphics Senior interface. I use it for

word processing and databasing of all kinds of information and it's got plenty of computing power. I write all my letters on this machine and keep track of all kinds of data on it too.

Address book

- Most computer users setting up their first database system would start with an "address book" file and I was no exception. I did this in my very early computing days on the good old C-64 using *Superbase* and when I moved up to the C-128 I bought the 128 version of the program (which reads C-64 data disks as a matter of course) and updated from there. I use this address book all the time and periodically update it then print out hard copy on the Star NX-10 to have on my desk in a ring binder for easy reference.

The address book is the easiest way to explain to the uninitiated what a "database" does. It's a sort of electronic "card file" system (only much more powerful) where you set up all the headings - known in *Superbase* as "fields" - that you'd normally have on a 5 x 3 card. Things like: Name, Street, Town, Post Code, State, Phone No, etc. You can have as many fields as you like and some users would go a lot further by having two fields for Phone No, one for Home and one for Work, plus fields for Sex, Occupation, Age, Spouse Name, Children, Hobbies, Interest, Fax No, and so on.

Once the fields are set up in the screen format that you want you simply enter all the information for everyone you want in your address book and it's automatically saved to disk with each entry. All of this is well covered in the excellent *Superbase 128* manual by the way, and it explains in very simple language all the steps in setting up this project.

Sorting

- When you've got all the information entered you can then realise the power of *Superbase 128* as there's a multitude of ways to manipulate your stored data. The "Sort" function is exceptionally powerful and lets you set your own parameters for finding a list of people in your address book which match them. Let's say for instance that you are a record collector and want to drop a line to all your contacts with an interest in Rock Music as you're looking for a particularly rare record album.

What you'd do is tell *Superbase* to compile a list of people in the database where the "Interest" field is "Rock Music". You can tell it to print a hard copy of the list when it's finished so that you'll be able to refer to it. *Superbase* will automatically save the list to disk as well.

That's a very simple Sort but you can set up some very complicated ones too. If you wanted to contact for instance: all the females in your address book, between the ages of 21 and 25, who live in a particular town, who like photography (nudge nudge, wink wink, say no more), who work as graphic artists, and who play keyboards then all you do is set up a "command string" (follow the manual for this) to Sort on the appropriate fields, ie Sex, Age, Town, Interests, Occupation, Hobbies.

Sit back and wait whilst *Superbase 128* goes right through every "record" in the database checking all the "fields" to pick out the ones that match the given criteria. As it finds them it lists them on the screen and then when it's finished the job it'll print the list after first saving it to disk. Very clever, and if you've ever done such a sort manually, by checking through a box of 5 x 3 cards, you'll know just how time consuming it is.

All of this is enormously useful to people such as social club secretaries,

(Continued on page 20)

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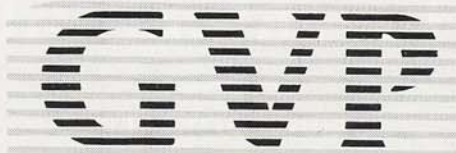
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user group librarians, function organisers etc, as well as hobbyists who collect things such as stamps, pictures, books, records etc. The applications for *Superbase 128* are endless and the beauty of the whole program is that it is "programmable". I don't know of any other database software that offers this feature and it's this that puts *Superbase* far ahead of the rest in my book.

Programming

● The programming language that *Superbase 128* uses is an extension of Commodore Basic and lets you write a short program to automate the Sorting, Searching, Printing, and other functions. Programs can be stored on disk for future use and it's a simple matter to call up such a program then "Execute" it with the F7 key. Again, the manual takes you through the methods used to set up such programs and it's really not very difficult. I don't have any special training and am certainly not an intellectual but I've managed to make *Superbase 128* do some very clever things for me with the various databases I've set up simply by following the manual.

Checking out the 240 page manual - unfortunately a glued spine book rather than a ring bound one - shows that it kicks off with a 3-level tutorial which covers just about everything you'd ever want to do. Working through this will make you fully competent and it's a very easy way to learn. Then follows a "Reference" section which details how to: Use Menus & Command Lines, Format screens, Enter data, Select records, Find a list, Output data, perform Calculations on your data, make Reports, and Maintain your system. This last one covers disk operations - Format, Catalogue, Backup etc - as well as the Import and Export of data in the form of standard SEQ files. These are extremely useful features as it means that you can use data created on other systems as well as send data to them.

The Memo feature is explained too, and it lets you write little notes to yourself which are saved along with your database. These can be a great help if your databasing sessions are several days apart and you've forgotten just what you had to do at a certain point. The Help screens are described then, these cover all

of *Superbase 128*'s functions and may be displayed at any time. You're shown how to write your own Help screens and save them to disk too.

After all of that comes the Programming section with its wealth of details about how to use the extended Basic to automate your databasing. I can't stress too strongly how useful this is. Everything can be programmed, from Searching a database to create a List, setting up the way you want it to appear on paper, through automatic deleting of outdated data, right up to sub-totalling and finally totalling of data to be outputted. All of this means of course, that you can run a small business on *Superbase* and have it produce invoices and customer records for you. You can even have it automatically produce a list of customers who, for instance, owe you more than \$1000 and are more than 30 days outstanding.

The last section of the manual has various Appendixes covering all kinds of useful things such as: Data Storage; Personalising the *Superbase* Startup program; Error Messages; Glossary of Words & Terms; Interfacing with IEEE, RS232, Parallel Cable etc; Printer and Plotter Information; *Superbase* version and machine compatibility; Converting from 40 to 80 columns; and Satellite programs.

Satellites

● These Satellite programs (they're "self prompting" and easy to use) include some very useful database support functions such as the "Delete" program which is basically a ready made *Superbase* program which makes it very easy to remove groups of records or even entire files from a database. It runs from within *Superbase* whereas the "Utility" program is a stand alone program which lets you recover data from corrupted databases and other files and also has some data copying functions.

The last of these Satellites is a "Labels" program which lets you print mailing labels from your address book for example. One to four across labels may be used, with serial numbering if required, plus multiple copies with up to 48 fields per label. Use up to four fields per label line and define width and depth of labels to suit. Your label definition can be saved to disk for future use and you may input data directly to the label instead of using

data already stored if you wish.

I have a disk which has quite a few *Superbase* programs, some of which I created myself and some of which were put out as examples by the makers of *Superbase*. They're very useful and I quite often load up one of the programs and adapt it to do something else rather than write a new one from scratch. I also have a cassette tape which was put out by the makers to teach how to use *Superbase 64* and a lot of the principles apply to the 128 version too. This is no longer available apparently, and it's a great pity because I found it tremendously useful. I'd be quite happy to provide copies of this and/or the disk of *Superbase* programs to readers in the interests of getting the best out of the software.

Superbase 128 is designed to be fully integrated with *Superscript 128*, which is the excellent word processor produced by the same company - Precision Software in the UK. *Superscript* is a full featured, easy word processor to learn and use and the beauty here is that you can have both programs resident in the C-128's memory at the same time so as to be able to use data produced by one program in the other. Very useful if you're writing a report using the word processor and want to incorporate listings of data created in the database.

I've been a *Superbase* user for several years and was pleased to see this update to version 3.01 as it now has the "Utility" program which was previously only available for C-64. Little refinements here and there enhance an already fine program and I can say quite unequivocally that it outclasses any other database program I've ever used by far. Not only that, the price has come down to less than half of what I originally paid for it and I believe it to be excellent value for money.

Best feature: Extreme versatility.

Worst feature: The manual's need for a bulldog clip to keep it open.

Superbase 128 V. 3.01 RRP \$49.95.

Superscript 128 RRP \$ 59.95.

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More Amiga Multimedia

by Andrew Farrell

IN MARKETING LAND and computer journal kingdom, desktop publishing is only now beginning to fade into normality. Just when you thought nothing could replace it as a marketing spring board, somewhere, someone latched onto the concept of multimedia. Unbeknown to them, the Amiga was already better equipped than most to handle this new desktop activity. As usual, no one had ever sung the praises of such an application. This was due to the inherent complexity of actually producing anything.

Indeed, as with desktop publishing, multimedia offers power and problems. Two new software applications for the Amiga have at least partially solved that problem. One is *ShowMaker* from Gold Disk - at present in Beta testing stage. The other is *AmigaVision* from Commo-

dore - soon to be bundled with the Amiga 2000.

AmigaVision

● *AmigaVision* provides flow-chart type control of your presentation. An iconic based interface allows you to adjust the various elements of your presentation on a grid. Each icon or presentation element has various preference settings which allow control over special effects.

Most importantly, *AmigaVision* supports the new Amiga operating system's 2.0 standard AREXX (TM) communications protocol. This allows *AmigaVision* to communicate with other applications. In real terms, this means there is virtually no limit to the type of graphics, music and sound or external devices you can

control as part of your creation.

Unlike existing packages such as *Deluxe Video III* which is time driven, *AmigaVision* is both time and event driven, for example mouse input. This is a more natural arrangement for interactive presentations such as that which would be used at information kiosks.

A *dBase III* compatible relational database is included from within the package. Data and images can be stored using this system.

AmigaVision also enables you to create libraries of events. New presentations can be constructed quickly using material from previous work.

The defacto Amiga standard IFF graphic files may be imported and displayed. Hot spots can be defined which are then used to accept a mouse selection and trigger alternative events. Animations using the ANIM format can be displayed, along with Sonix type music files and 8-Bit digitised sound samples.

Control device drivers are included for several popular laser discs and video tape players, as well as software controllable genlocks and touch screens. *AmigaVision*'s improved user interface, ease of use, high quality documentation and most importantly, inclusion as part of the standard Amiga operating environment will make it the standard by which other multimedia products are measured.

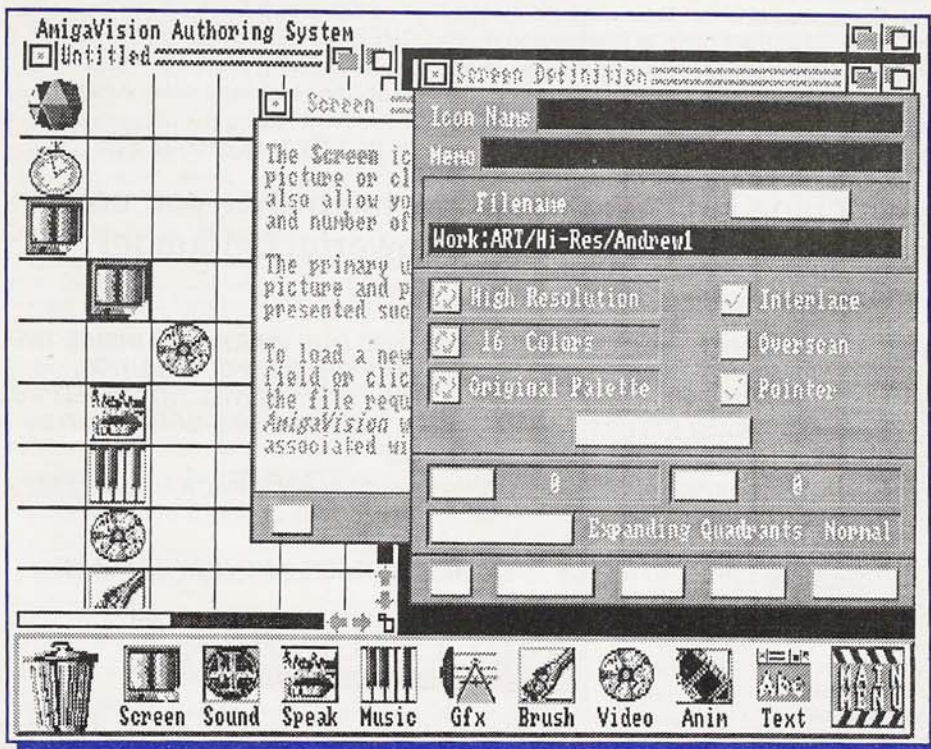
AmigaVision will be bundled with all Amiga 2000's real soon now. It will also be available separately. No pricing is available yet. Watch for a full review soon.

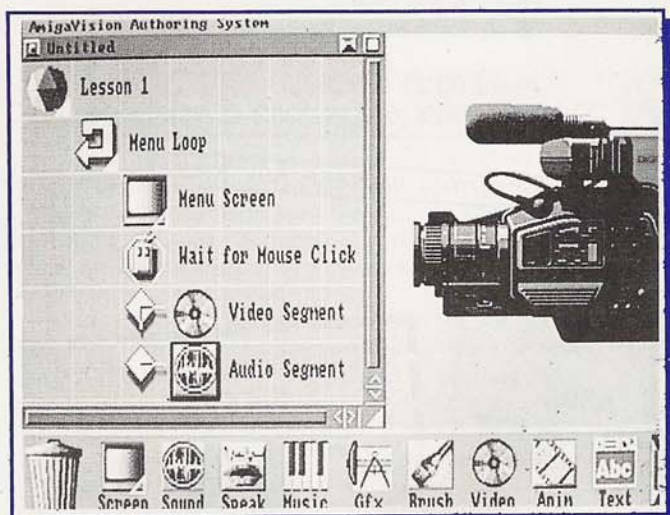
ShowMaker

● Creating your own fully automated presentation, be it a simple series of slides, or a complete interactive session with animation, music and sounds, can be a trialsome project.

Problems often stem from the difficulty of choreographing your music with graphics, and the inherent loading times for larger screens or animations which tend to throw your timing right out of skew. *ShowMaker* from Gold Disk solves that problem completely. Indeed, *ShowMaker* is the very first of its kind on any computer.

Like other presentation tools, the





package does not in itself allow you to create the raw material. This is best done using your favourite titling, animation or draw programs along with a music program such as *Music-X* or *Bars and Pipes* - two of the best, both of which allow you to control a keyboard by means of MIDI.

Unlike other presentation tools, *ShowMaker* allows you to combine and synchronise all your slides, music, animations and sounds. More significantly, you can also synchronise your show with material from Video Disc or a VCR.

During playback, segments about to be displayed are pre-loaded automatically using a patented scheduler routine. Images arrive in the Amiga's memory just prior to their being displayed so you never have to wait for your disk drive to catch up. Continuous play is limited in time only by the size of your hard disk.

Events can be triggered in a variety of ways. Some of these are: according to the beat of the music, by the frame currently being displayed or from an external device - which is where the real power starts to scream ahead of other packages.

Certain video cassette players have an additional track which contains SMPTE time coding. This code tells the VCR exactly at which frame it is, and how much time has elapsed

from the start. When this code is sent to the Amiga through an appropriate interface it can be used to trigger events within your presentation.

All of this is made simple thanks to the intuitive user interface. A show is displayed in one of three ways. As a time line events appear as horizontal bars on a graph where the X axis represents times, and the Y axis allows for each track. The start and end time of any segment can be adjusted by grabbing a slide indicator and dragging it up or down the time line.

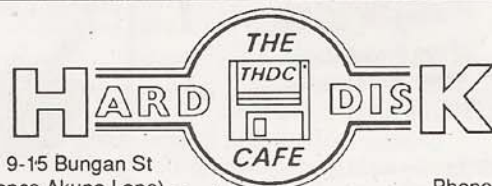
In storyboard mode events are listed in simple order of starting times. A miniaturised picture appears to show what you can expect - just like a real storyboard. This display can be printed out for an overview of your presentation. For a compact overview, the event list mode displays the associated file name, and its start and end time only.

Double clicking on an element of your presentation opens the parameter window. Tempo for music, frames per second for animations, and various wipes and fades for graphics can be selected.

ShowMaker has one of the simplest to understand, and easiest to alter presentation interfaces I have ever viewed. It is better than *Deluxe Video III*, the choice of many presenters right now. It is different from Commodore's *AmigaVision*, which is probably more suited to simpler presentations which can be produced without so much attention to detail.

Professional presentation designers will love *ShowMaker*. Release is expected within the next three months. *ShowMaker* will retail for under \$400. More in depth info as soon as we get a stable version!

Australian distributor to be announced. □



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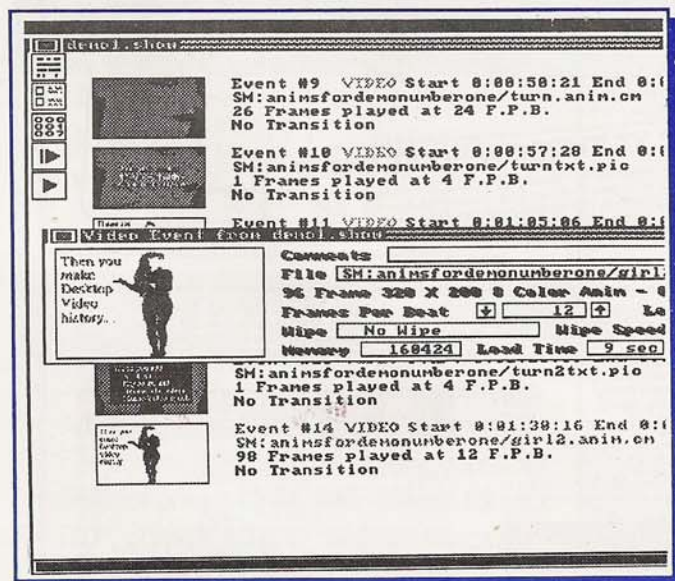
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Title	Amiga	PC	C64	Title	Amiga	PC	C64
Midwinter	●			Pro Tennis	●	●	●
F-29 Retaliator	●			Double Dragon 2	●	●	●
Fighter Bomber	●	●	●	Pirates	●	●	●
Castle Master	●	●	●	Bars and Pipes	●	●	●
Champions of Krynn	●	●	●	688 Attack Sub	●	●	●
Impossimole	●			Sherman M4	●	●	●
Ninja Warriors	●		●	Wide World of Sports Pack	●	●	●
Indianapolis 500	●	●		Xenomorph	●	●	●
Leisure Suit Larry 3	●	●		Can Do	●	●	●
Teenage Ninja Mutant Turtles	●	●	●	Their Finest Hour	●	●	●

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Wind Walker	Arcade action	49.95

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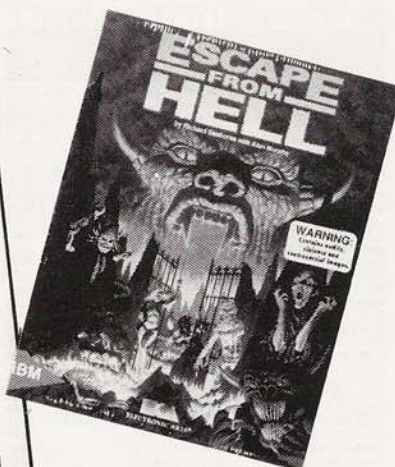
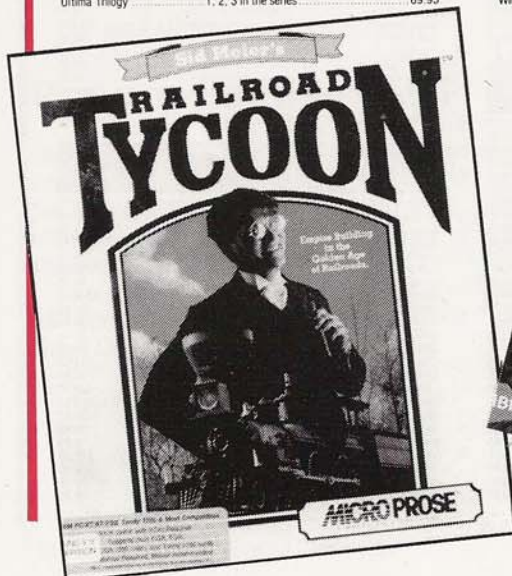
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The Works! Platinum Integrated Productivity

by Eric Holroyd

HAVING REVIEWED *Scribble! Platinum*, the word processor which is part of this suite, in the January '90 issue and being mightily impressed with it, I was delighted when the opportunity came along to check out the complete suite. So here goes ...

There are five modules in all: Word processor, Database, Spreadsheet, Telecommunications, and Sideways printing. It comes very well presented in a "slip-cover" box into which the hardbacked manual (500+ pages) fits along with the three disks. The 3-ring 8x6 manual is excellent, with labelled index tabs identifying the various sections and it has two tutorial sections on each of the first three modules covering both beginners and advanced users,

What you get

● *Platinum Works!* comes on three disks, the first has a modified 1.2 Workbench with some 1.3 additions. It's the "boot" disk and also contains *Scribble!* and *Spellmate*. Disk 2 has the remaining modules whilst disk 3 contains sample files for the tutorials. The disks are not copy protected and you're advised to

make duplicates before starting work and put the originals away.

Because of this lack of copy protection hard disk installation is easy and HDInstall is on disk 1 to help do this. There's a plea in the manual about piracy re copy protection which says that the makers feel that "quality software at a reasonable price is the best way to encourage people to purchase a program rather than 'sharing' it". This is certainly true in this case and I feel that the current RRP of \$199 is very good value for money so they've kept their promise there.

A very useful "ReadMe" file on disk 2 has hints, tips and manual corrections and tells how to convert data files from the original *Works!* programs to be compatible with this hugely improved versions. After the January '90 issue appeared we had a call from Rodney Waters in South Australia relative to the *Platinum Scribble!* review. He'd already discovered a manual "bug" re the saving of configuration files and advised that "instead of Word.fmt it should be saved as Default.fmt". Thanks, Rodney. (Incidentally he agreed with what I'd said about the software and said he was very pleased with it.

Database

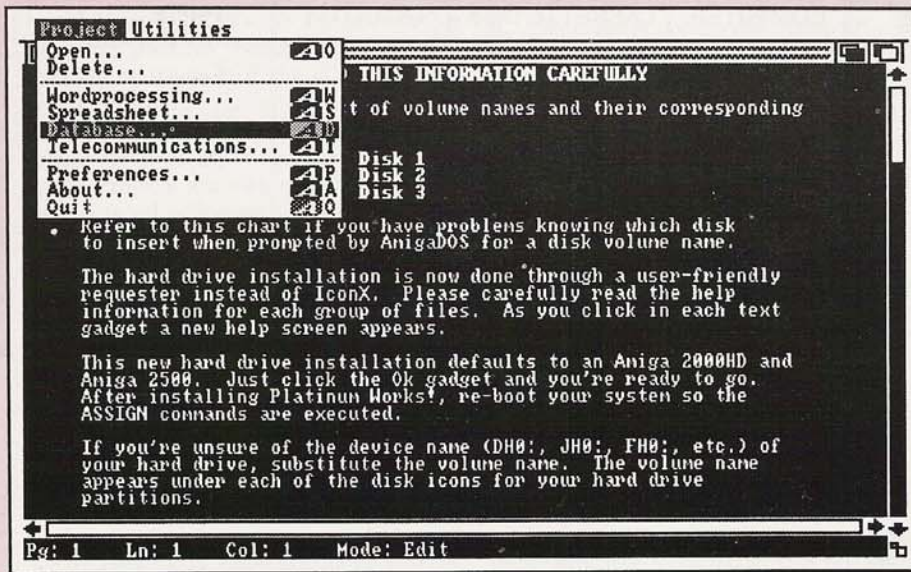
● *Organise!* is the database module, and it's got a lot of power. For a start, the specifications say that the maximum number of records in a database is 4.2 billion! Each database may have up to 128 fields of varying types (Text, Numeric, Date, or Yes/No). Field names may be up to 10 characters long and field widths are from 1 character for a Yes/no field, 8 characters for a Date field, 16 in a Numeric field and up to 254 characters in a Text field. Fields may be added or deleted to an existing database (I like this one!) and you may change an existing field's width if you find you haven't allowed enough space for the details you're filing. Even a field's name itself may be changed if you wish.

Entering data is quite easy and many of the functions are mouse controlled from pull down menus. Keyboard equivalents are available too, in keeping with the standards set by the Micro Systems programmers in *Platinum Scribble!* and moving around the screen is quick and easily done with the arrow keys. The screen display is known as a "Form" and setting up your own Forms is thoroughly explained in the manual. There's literally no limit to the number of Form layouts to each database file. The specifications simply say "Infinite". Once again there are sample database files on disk 3 to practise with and learn how everything works.

Printouts of your stored data are called "Reports" and to get a Report you first of all Index a field for sorting purposes. What this means is that if you're printing out your address book you can Index sort it on the Post Code field for example. This groups all addresses into Post Code areas, a good one for sales managers when sending salesmen out to work, or for individuals and businesses targeting a particular area for a mail drop or similar.

Indexing can be done on any field and indeed on more than one field. For instance, a User Group secretary might

(Continued on page 30)



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have a database of members specifying their computer equipment and particular interests. An index on three fields could be generated from this to list all Amiga owners having hard drives and with an interest in animation.

There's a powerful maths package built into the database manager which allows some pretty sophisticated calculations. A whole chapter is devoted to this in the manual and it explains how you can use "accumulators" to allow calculations and running totals between records during database searches and reports. The same maths functions are available in the spreadsheet module so they only need to be learned once.

Maths commands are prefixed by the commercial at sign "@" so that @EXP(x) - the Exponential Notation command - raises a number to the power of (x). @HLOOKUP (x,range,compare) is a "horizontal lookup table" command which

compares the values in the first row of a range with a defined number of additional rows. An arithmetic function on dates allows for Leap Years to be included in timespan calculations and a particular day or month can be extracted from data using the appropriate commands.

Searching for and retrieving data is done with search "Filters" which is simply a character string you define to tell the program what to look for. An example is:
FIRSTNAME>="M"#AND"FIRSTNAME<="N"

This is searching the sample address book file for all firstnames greater than or equal to "M" and also includes the #AND# condition to say "don't display any firstnames less than or equal to "N". Other conditional commands include #NOT# and #OR# which are pretty well self explanatory. Multiple conditions are allowed so some pretty complex searches can be carried out.

Browse is yet another search function and is quicker than the Filter method just discussed. It doesn't support the condition commands but will attempt to find the closest match to the character string you define.

A very important feature of the database manager (for those with IBM type machines at the office and an Amiga at home) is that it is fully compatible with dBase III file structures, which means you can import data from files at work.

Spreadsheet

● Spreadsheets are done with the *Analyze!* module which is claimed to be "the fastest Amiga spreadsheet" and I've got no quarrel with that statement. For a

start, it had the ability to import and export Lotus 1-2-3 .wks files which again would be useful to people working on different computers at their office and home. On the subject of import and export you can do those operations to combine worksheets, move data from one worksheet to another, insert spreadsheet data into a wordprocessor document, insert wordprocessor text into a worksheet and more.

This is done via the Clipboard which is very useful if you don't have enough memory available to run two modules simultaneously. Simply do a Range Xport, quit the spreadsheet module, load the word processor and do a Text Paste. Easy. It all works in reverse order too.

The very basics of spreadsheeting is the concept of Rows (numbered) and Columns (lettered). Where these intersect is known as a cell. Thus, A21 is the cell in the 21st row in column A. Manual operations on rows and columns of figures performed with a pencil and calculator are something we're all familiar with and it's easy enough with those tools to get a grand total of all the rows and columns.

The tiresome work of recalculating ALL of them begins if you find you made a mistake in just one of the cells, which means that the whole lot has to be redone. With pencil and calculator it takes ages, with the spreadsheet it's super fast. You can even command the spreadsheet manager to update ALL totals every time you enter data or only when you press the F9 key.

There are many CALCulation commands too, to process your data in different ways, and once again they're all well documented in the manual and fully ex-

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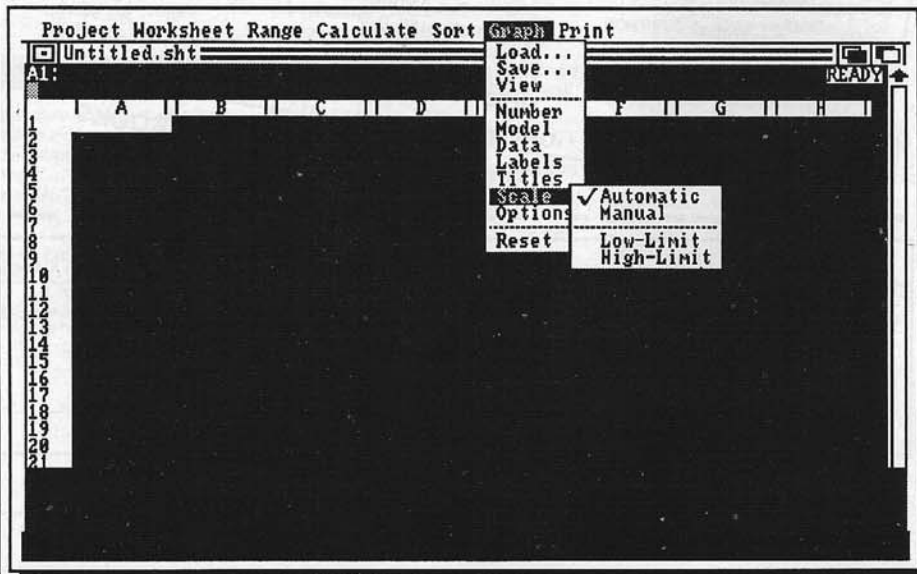
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plained in the tutorials. You'd be well advised to work through as they take you right from creating a Worksheet, through Calculations on your data, right up to advanced level spreadsheet work.

When you're sick of looking at figures - or worse still of trying to get someone to comprehend the magnitude of them - you can choose to display it all in Graph form. This is capable of eight different types of Pie Charts and Bar Graphs and in eight colours. Masochistic television viewers who watched channel 9's Election coverage would have seen 3D Bar Graphs showing the current "swing" compared with the last Election. Those red and blue 3D bars told an immediate story and the same kind of thing can be done with *Platinum Works!* spreadsheets and *Graphmaker*. As well as displaying your graphs on screen you can make a hard copy on the printer (assuming graphics capabilities, of course).

Macros are supported - in fact there's a complete macro language - and you may use boldface, underlining and italics to emphasise particular cells. Also, if you've got a 68881 Coprocessor you'll find that it's supported by this program.

Communications

● Telecommunications is an area I haven't yet got into, mainly because there aren't enough hours in the day to do all I want to do on the various computers I play around with in addition to all my other activities. I'm afraid that if I buy a modem I'll have to use the only remaining time (that which I normally spend sleeping!) so I've had to resist that purchase. I don't know much about the subject therefore, and can only tell you what the overview of this module told me.

For starters it emulates VT 52, 100, 102 and Tektronics 4010. It's IBM and ANSI compatible in eight colours and has complete Auto and Redial capabilities. Like the other modules it's Clipboard compatible so that data can be pasted to the clipboard if you don't have enough memory to run everything at once.

Pulldown menus are used throughout, and of course there are keyboard equivalents for the various commands. There's a Phone Book in the Project menu which will display up to 40 phone numbers. Each entry stores the name and number of the service you're calling, the Macrokey definitions (there are in fact 20 keys which are User Programmable as Macrokeys), the COM settings and an op-

tional Script file path and name.

These Scripts are the heart and power of the telecommunications module and they're really little programs which control practically every function. 8k is the size limitation here, but that doesn't matter as one Script can "call" another. What it all means is that you can set up your system to call someone else's system late at night (maybe I COULD afford the time for this!) when rates are low, transfer information and have it all ready for you in the morning. There's a simple Script language with a whole chapter devoted to it which seems quite easy to follow and it all seems like a good idea to me.

Several "protocols" are supported, including: WXmodem, Xmodem, Xmodem (1k), Zmodem, Kermit, Compuserve B and SADIE. This last one was specially created by Micro Systems Software and allows simultaneous 2-way chat and bi-directional file transfer. Once again, drop down menus are used and all these are available from the File menu. Baud rates of 300 to 19200 are supported.

Sideways

● As for the Sideways printing utility, the first comment that comes to mind

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is that it's a simply brilliant concept! When printing a large spreadsheet file you previously had to sticky tape together several pieces of printout to be able to see all your figures. This program turns the entire file 90 degrees so that it prints sideways down the page, enabling you to print the widest spreadsheet file continuously.

Margins are adjustable; boldface, italics and underlining are available; and you may use whatever font you wish. If the spreadsheet has too many rows to fit the width of your paper (remembering that the columns are being printed DOWN the paper) then you may tell Sideways to print "Glue Lines" and it'll then allow some overlap so that the finished output may be pasted together. Sideways also prints IFF graphics down the page instead of across, which is very useful if you have wide pictures that won't fit across a normal page.

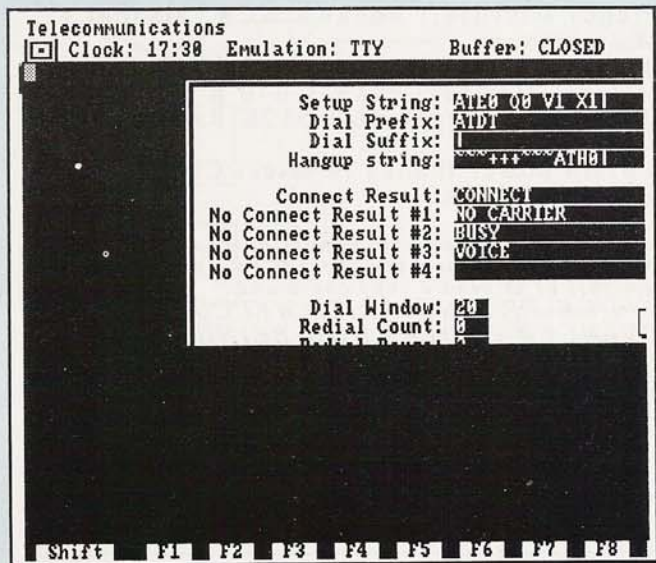
Spellmate is a useful editor for the User Dictionary section of the word processor module. With this you can add, remove, or change words at will. All professions and pursuits have their own words and terminology and it's good to be able to include your own unique words in the spell checker. Spellmate is easy to use and works on the User Dictionary only. The Main Dictionary may not be changed.

Conclusions

● I'm very impressed with this suite and with the honest advice given to users in the beginning of the manual too. This says that you require "A Commodore Amiga 500, 1000 or 2000 with a minimum of 512k RAM and a disk drive. We strongly recommend 1meg (or more) of RAM and an a hard disk drive in addition to the floppy disk drive". What they're saying is that to get the best from the software you need some add-ons to your basic system. They list a number of Memory Expansion boards and Hard Disk Drives with which they've tested *Platinum Works!* also.

I said something in the original *Platinum Scribble!* review about "easy to use business class software" and that applies to the full suite too. Interestingly enough, I'd quoted *Platinum Works!* current price "as at 1 Dec 89" as being \$279. It's now been considerably reduced, which in my view makes it an even better buy.

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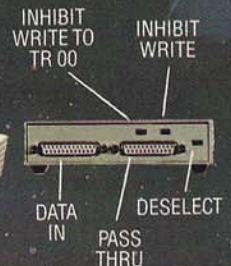
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Tiger Cub

by Eric Holroyd

I MENTIONED THIS new item from Dr T's Music Software very briefly in the May issue of *Australian Commodore & Amiga Review*, promising a full review when I was able to get hold of the program. I have it right now and I'm mightily impressed, so here we go with a rundown on what it's all about.

Tiger Cub is billed as "the music program for the rest of us" which means that it's aimed at Amiga users who would like to use their computers for music making but baulk at the technicalities of high level music software. Dr T's have come up with a full blown sequencer program with a great new system of "Graphic Editing" which lets you enter and edit your music using the mouse on a kind of "piano roll" screen.

I've never seen anything like this in all the music software I've looked at and it was quite a revelation to find that this new system has everything that the others have - and a few new tricks too - but its very concept makes it much easier to work with.

Graphical Editing screen

- Notes are represented on a grid in the Graphic Editing screen as thick horizontal "stripes" with vertical "tails". The stripes show the length and pitch of the note whilst the tail shows its velocity. Down the left side of this display is a keyboard, the notes of which will sound when the mouse is clicked on them.

This lets you know immediately what the notes are - they're named elsewhere on the screen too in yet another display that shows the current location of the mouse on the grid with A#3 for example (meaning A# in the third octave) and it's all very easy to understand as there are locator marks on screen plus a readout of the current cursor position.

There's a menu of nine icons below the grid which are selected to then Draw notes, Edit pitch, velocity or duration of notes, Cut and Paste notes, as well as Move or Erase notes altogether. Along the top of the display is the "Track Information Line" which is a series of initials (called "buttons" in *Tiger Cub*) which you click to open a window displaying various parameters relevant to the Track you're working on.

You may MUte (turn off off a single Track) or SOlo (turn off every Track except the one you've highlighted to have playing), Change the MIDI channel of all events in a Track, set the



Program and VOlume events in a Track etc. Advanced features like Velocity, Pitchbend, Aftertouch, Breath Controller and Mod Wheel are supported and all the parameters of each will be displayed by clicking the appropriate button.

Above all of this (it sounds awfully complicated but it's not really! It's just another of those computer things that's harder to describe than actually use) is a range of drop down windows with yet more features. The mouse is very cleverly programmed to have the right mouse button select these menus, but only when it's right at the top of the screen. The rest of the time it's programmed to play the current Track from anywhere else on the display.

Think of this Graphic Editing screen as a kind of "player piano roll" and you'll begin to get the idea. It's such a departure from the previously accepted methods of creating music on computers but I can see it being widely used in future. Simple tunes can be written and played instantly by just painting notes on the grid, whilst accompaniments and backings can be overlaid on successive tracks even whilst the music is playing.

Tiger Cub works on Amiga 500, 1000, or 2000 models and Cub supports the MIDI standard, although MIDI is not required to operate within the Graphic Editing system. A MIDI interface is optional and IS required if you wish to play your music into *Tiger Cub* via a MIDI keyboard or synthesiser. My own MIDI keyboard is a Lowrey LK30 and I've had excellent results with it coupled to *Tiger Cub* via a MusicMaster MIDI interface.

KeyDisk copy protection is employed on the *Tiger Cub* disk, just as it is with most Dr T's products. This means that you can install the program on a hard disk and will need to insert the master floppy in df0: to get past the copy protection. After that it'll run from the hard drive with no problems. Similarly, you can make a floppy copy of *Tiger Cub* which you can use as a general working disk. It too will need you to insert the master in df0: to pass the copy protection check, but after that you can re-insert your copy to carry on working.

Tape Recorder screen

- Back to the program. An icon at bottom left lets you exit the Graphic Editing screen and go to the Tape Recorder screen. This is the kind of music editing display you may have seen in some other music programs, and it has six square control "buttons" activated by a mouse click which work just like a normal tape recorder to Record or Play, Stop or Pause, and Rewind or Fast Forward the music.

Solo and Mute are available on this screen too, as well as a



"Waltzing Matilda"
Fig 1
shows it
quantised
to eighth
notes.

number of other icon driven functions similar to the ones described for the Graphic Editing screen. Don't think of *Tiger Cub* as just a multi track tape recorder though. Instead, think of it as a tool which you (as the conductor) use to direct a group of musicians (the various tracks you set up) to play music just the way you want it to sound.

On the Tape Recorder screen you're able to type in your own comments describing the "events" as recorded. For instance your first event on Track 1 might be a Fanfare programmed to be played on a Trumpet, so you'd type in those words alongside the Track data. These comments can be very useful if you're working with a long piece of music as it's easy to lose sight of what's what if you rely purely on your own mental notes.

The Graphic Editor and Tape Recorder screens are both complete music sequence editors, and you may work on either of them to record a complete piece of music. I found it great fun and quite easy to use a combination of both systems to make my own recordings. A single mouse click gets you from one system to the other and as most of the functions are represented by icons it's easy to learn what everything means.

Don't for a minute think that this is kiddywinky stuff either! It's not, it's a very high level music system approached from an entirely new viewpoint but with many familiar features built in as well. Most of the pull down menu commands have keyboard equivalents and there's a multitude of fine tuning that you can do with them.

For instance, both editing systems allow Quantizing (automatic timing correction to within limits that you set yourself) and you can use either external sounds from your MIDI syn-

thesiser or the Amiga's own internal sounds. You can also set up instrument banks of IFF sounds to use with your music.

Music entry can be in Real Time (recorded straight off your synth as you're playing it) or in Step Time (entered a note at a time) and there's a dedicated Conductor Track in addition to the twelve MIDI tracks which keeps score of all the various events for you. To cue you in properly there's a Count In feature where you set the number of Metronome "click beats" to be sounded before you actually start playing.

Also you can opt to have the Metronome on or off as you record. Looping can be switched on so that your tracks will just keep on playing as you add to them, and if you make a mistake you can erase the current track or even the last track recorded.

A good friend of mine uses one of the Apple models to record his music with, and when I played around with his system I was interested to see that the particular software in use worked with normal music notation. As I played a tune on his synth the Apple recorded it and it came up on the screen in normal musical notation. We quantised the odd mistakes and got everything on screen to look just the way it should and then we played it back.

To say that I was disappointed is an understatement, as what should have been a very swinging little number sounded really stilted and jerky, even verging on corny. The very fact that the computer was using standard notation turned out to

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"Waltzing Matilda" Fig 2 shows it quantised to sixteenth notes.

be the reason for the corny sounding music.

The essence of good sounding music is in the way that it's interpreted by the musician playing it. Different musicians will interpret written notation in slightly different ways just as different narrators will read poetry. In 4/4 time we can divide the quarter notes (known as crotchets to European trained musicians) into 8th notes, 16th and 32nd notes, and as long as the accents are to be equal on every note (as in classical music and Scott Joplin music etc) there is little or no interpretation problem.

If a "swing" feel is needed for pop, rock or jazz music then we need to have the notes dotted to give a "doobydoobydooby" feel instead of a "dadadadadada" one. A sequencer is eminently suited to this as it is capable of much more accurate time calculations at very high speeds than even the finest musicians, and musical "time" can be divided into much finer steps than those used in standard notation.

A step is the smallest amount of time the sequencer can recognise and is best explained as being a nominated fraction of the "beat". The *Tiger Cub* sequencer usually has a quarter note being equal to 240 steps (much finer than the 32nd notes discussed above) and it's easy to see that if you were to play an eight note triplet then each note would be 160 steps long ($3 \times 160 = 480$ or 2×240). Thus your note timings can be made extremely accurate and, as I said earlier, you can set Quantisation to whatever timing steps you want anyway.

Compatible programs

● Dr T's Music Software has a range of more than 30 compatible programs which means that music files created in one package can be used in another. Thus, owners of *KCS*, *Level II*, *Caged Artist* etc etc can use files created in *Tiger Cub* AND VICE VERSA.

As all the programs have different ranges of functions and applications you may wish to use a combination of this software to achieve the results you want, in the same way that graphics specialists

use one paint package to produce their picture and one (or more) other packages to "tweak" it to whatever standard they want. Incidentally, *Tiger Cub* creates files in both the industry standard MIDI format or in the Amiga SMUS format.

To fully utilise the compatibility aspect of all their various packages Dr T's have developed their *Multi Program Environment* (MPE). This is a means of loading various programs from within each other so as to share data and I was quite staggered to see it in action. It's Amiga multi tasking put into action and is used with great effect within *Tiger Cub* to load a quite separate program from the master disk which is known as *QuickScore*.

What you do is go to the pull down menu labelled MPE and click the single entry which is *WorkBench*. This takes you back to the *WorkBench* screen from where you started *Tiger Cub* by clicking its icon. Now click the *QuickScore* icon and before you know it you'll be back on the *Tiger Cub* screen. Go back to the MPE pulldown and there are now two menu items *WorkBench* and *QuickScore*.

Click *QuickScore* and its window will come to the front, displaying a message that it's processing your data and pretty soon it will have translated your music file into standard musical notation and be displaying it on the screen. It can now be edited even further, quantised if you wish, and printed out as hard copy in very good quality print. There are printer drivers on the disk for the HP LaserJet Series II & Plus, HP DeskJet and InkJet, Panasonic and NEC 24 pin printers, Atari SLM804 laser printer and Epson FX/LX compatible 9 pin printers.

Printing

● *Tiger Cub* works with any printer that's supported by the Amiga itself and the sample printout shown here was done using *QuickScore* and the Star LC24-10 (24 pin dot matrix printer on normal 10" wide paper). I used the EpsonQ driver and set it in Preferences before starting up *Tiger Cub*.

The two printouts show the first four bars of *Waltzing Matilda* which I'd played on the Lowrey keyboard a line at a time. *Tiger Cub* recorded it all and then I went to *QuickScore* to have it "Tran-

scribed" to normal notation ready for printing.

I did it two ways to check on the *QuickScore*'s Quantize function and Fig 1 shows it "quantised to eighth notes" whilst Fig 2 shows it "quantised to sixteenth notes". All done with no further input from me and quite staggering from a music writer's point of view.

QuickScore has three menus - Project, Edit and Options. The first one lets you save the music "as displayed on screen"; Save the screen colours and resolution (set these firstly in the Options menu); Print a single line or the complete file; and Quit *QuickScore*. Selecting Display from the Edit menu brings up a window with a host of options such as: Clef, Bars per line, Include bar lines?, Join stems?, Key & Time signatures, Quantisation amount, Tie syncopated notes over beat? etc etc.

In the Options menu you have the choice to display every Track in your song or maybe just a Single Staff. You can Jump to a particular bar (measure) number and also set the screen up as I said above. Resolution choices are MedRes 640 x 200 or HiRes 640 x 400 and you also get a screen colour requestor identical to the one in *Tiger Cub* itself.

This is a very good piece of music software. It's capable of extremely high grade professional results, yet you don't need to be a "pro" to use it. In fact I think that the Graphic Editing concept will actually teach you how to make better music with your Amiga due to its "paint and play" function. The idea of graphically representing the Pitch, Duration and Velocity of a given note is a stroke of genius in my book and as I said at the outset, I'm mightily impressed.

Review copy from **Computermate Products** (02)457-8388
RRP Amiga \$119.00.

Other products mentioned in this article are available as follows:

Lowrey LK30 - Chris Marshall (02-726-8444) about \$895.
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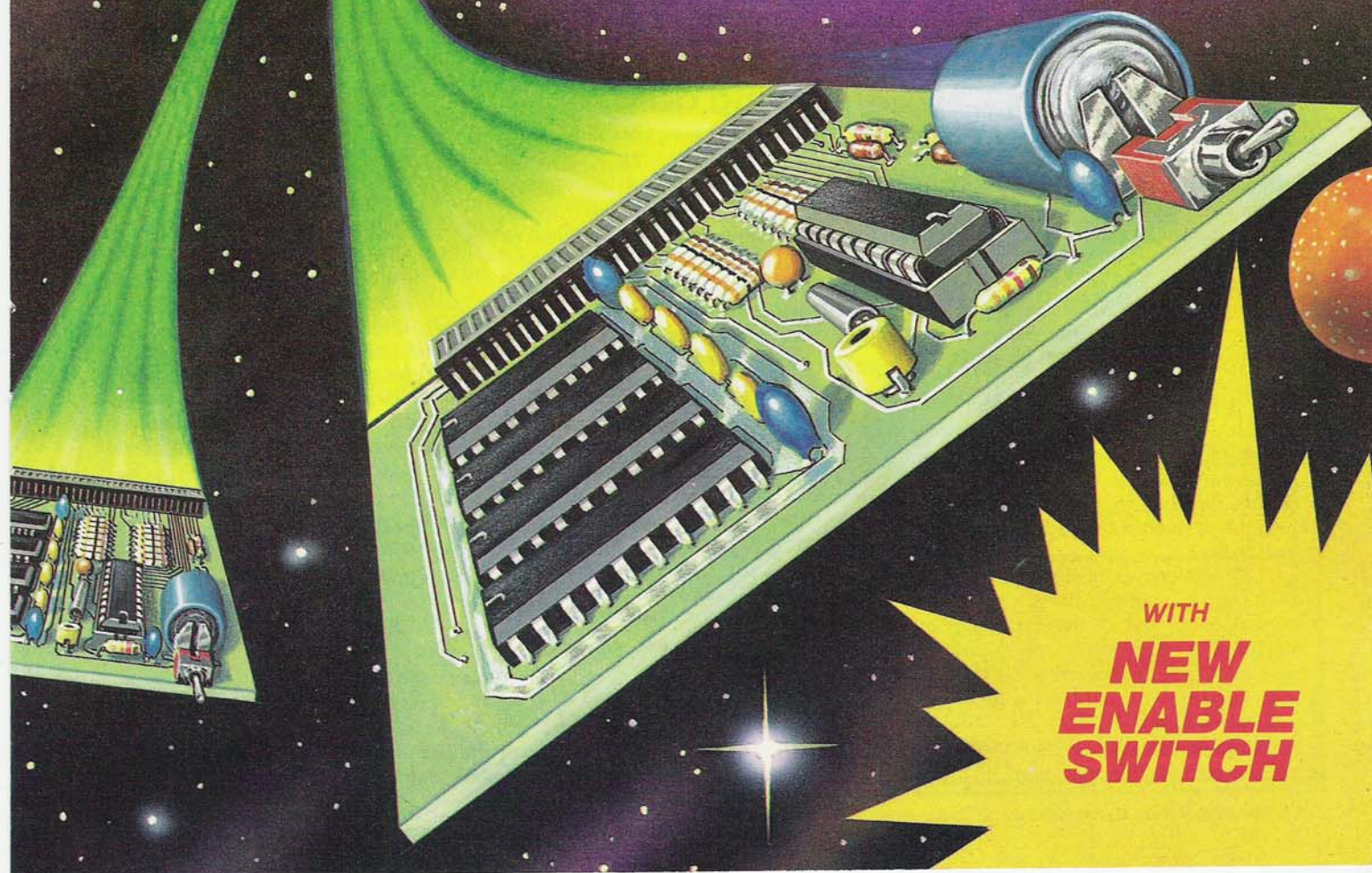
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The GEOS Column

GEOS IS THE most powerful operating system available for the C64/64C in the world. Last month we began a double issue format for this column. We will look at something from a user perspective. Additionally, we will cover technical aspects of GEOS for the programmer.

This month we'll be looking at one of the latest offerings in the GEOS suite of software, *Geochart*, and finishing our description of the GEOS utility *GeoASCII*.

Geochart

● When I first got into GEOS, I was very impressed with the range of ideas the Berkeley people had implemented in the GEOS range of products. As you will probably know, each GEOS product concentrates on one area of business and home computing facilities.

For example, word processing, graphics development, desktop publishing, database, spreadsheet and so on. A fundamental concept of each package is that they are easily integrated with other packages to allow easy incorporation of the program output into others.

All of this has been very well implemented, but until now there has been no facility to develop charts or graphs. The only possibility is to draw them "manually" using *Geopaint*. With all the spreadsheet data I have, home budgets, bank balances, community group financial information, investments, hobbies, I've been impatiently waiting for a graphing program ...

For months and months, *Geochart* was announced in the American magazines, but inquiries always came back "not yet available". Well, all that has changed. *Geochart* has arrived.

It is the most cost effective and comprehensive program for charting available on the market for the C64, and even IBM owners will be very jealous of their C64 rivals when they find out what can be done, at such a low price, and so professionally.

Geochart arrives in the typical GEOS package, complete with diskette, 116 page manual, and all the trimmings. Installation is very easy, just follow the manual. One important point is to make a backup (or two), and use the backup as your work disk.

You can also copy *Geochart* to your favourite composite applications disk. For

example, I have *Geowrite*, *Geomerge*, *Geochart*, *Text Manager*, *Photo Manager* on one disk. I use these all together regularly.

You should also understand that each GEOS system carries a unique ID. This means when you have installed your programs to your master disk, it will not run on any other system. This is purely a self protection mechanism by Berkeley against the unprincipled copier.

As a further incentive against such activities, GEOS packages are extremely reasonably priced, so that the consumer has no excuse except to buy the real thing. How many programs are used with no documentation, or photocopies made of the real doco using employer's photocopiers! The quality of GEOS manuals is unquestionable. *Geochart* is no exception. Buy it - don't copy!

GEOS products are now well supported from a number of Australian distributors, as you will see advertised in this magazine. You will notice a recent and significant across the board price reduction of GEOS products available to Australian consumers from these distributors. Even more reason to get your copy soon.

Preparing data for Graphing

● Graphing data is imported into GEOS using text scraps. These can be produced using *Geowrite*, *Geofile*, *Geocalc*, or the Notepad accessory. The accessory is included with the *Geochart* to allow a user directly type in data to be charted without using the other programs. The actual text data is organised in a table like fashion, similar to a spreadsheet.

chart title, series name a, series name b
etc
category name a, value, value
category name b, value, value
etc

"Rows" are separated by 's, "columns" are separated by commas or tabs (-i). An example may help:

Budget vs Actual, Jan 1990, Feb 1990
etc
projected, 1000, 800
actual, 950, 400

As you can see, data is entered in a

simple fashion. For some graphs, eg: pie charts, only one column or row of data is used at a time.

Printing charts

● Charts produced can be easily printed directly from the program, or copied out to photo scraps for transport across to other programs. One criticism I have on this point is that a new page is created for each graph you print, which seems a big waste of paper.

However, some of the other high edge spreadsheet & graphics, (eg: *Excel* on the Macintosh) do exactly the same thing. Each graph only prints about 1/3 of a page. Having used *Excel* extensively at work, I have no doubts in comparing the graphics capabilities with those of *Excel*, in terms of basic functionality, many of the options are there. Especially with comparison to price (\$1000 for software alone - you can buy a Propak 64C, drive plus all GEOS for that).

It is probably beyond the scope of this program, but it would be nice to be able to choose the orientation on the page (eg: sideways). This can be done, in a roundabout fashion using a photo scrap into *Geopaint*, and using that program's rotate option.

Photo scraps

● You can easily produce a report with graphs included right into the middle of your *Geowrite* document. The photo scraps produced are in three forms.

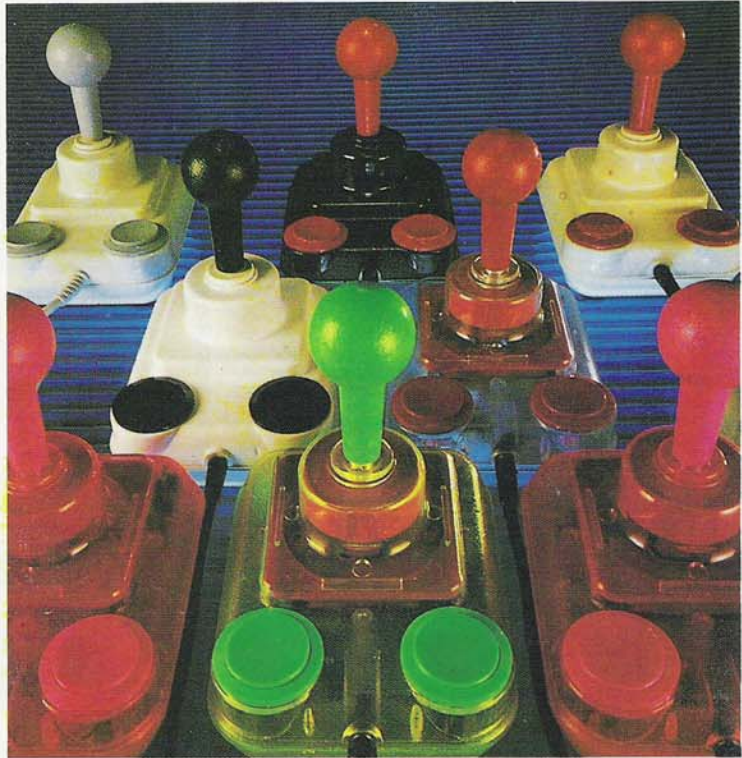
This is because some of the other GEOS applications can only accept certain size photo scraps. There is full screen (eg for *Geopublish*) where no condensing occurs. To *Geowrite*, in which case the chart will be condensed somewhat to fit. *Geopaint* also has another compression type.

Overall feel

● The familiar pull down menu system is used for accessing all functions. Once you have used it, the feel of how to get the desired results is quite intuitive. Keyboard shortcuts are provided for some functions. Chapter 2 of the manual provides a worthwhile tutorial.

There is a myriad of graphing possibilities. One fundamental concept that may take a bit of time to follow is that

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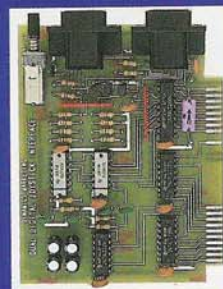
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most graphs are not the x-y plot we all learn at school. Generally, the y axis is numbered as a value axis, but the x axis is typically the category axis, without scales.

For example, if you wanted to graph monthly income, the y axis is scaled in dollars, but the x axis would be divided up into text labelled periods called months. X-y plots are certainly catered for, but you'll find they are not used nearly as much in most circumstances as you'd expect.

The chapters in the manual are as follows:

1. Getting Started
2. Learning *Geochart*
3. Preparing a Text Scrap
4. Opening *Geochart*
5. Importing Data
6. Formatting Charts
7. File Management
8. Appendices

Preparing and customising graphs

● Actually preparing a graph, once the data has been typed in, or otherwise prepared, is a two step process. The data to be actually graphed is nominated using a matrix.

The matrix is a pictorial representation of the rows and columns of the graph data. A given row, or column is defined as a "series" and is selected using the mouse. Up to four series can be graphed at once. Any more would be too cluttered anyway.

The first step, is to tell *Geochart* exactly what data you want graphed. This is done using a graphical "checkerplate" representation of the data, in which you fill in rows of columns by pointing and clicking. If you don't have a joystick, or preferably a mouse, you come quite unstuck here. But then without these, you can't use GEOS anyway!

It takes a while to master this particular and important point, as I feel the matrix is a bit small. However it is none the less functional.

After this, *Geochart* proceeds to draw before your very eyes a bar chart. The screen drawing process takes a bit of time, say 5-10 seconds with a lot of data, but this much quicker than you or I!

Next comes the customising part. You can add labels, titles, change patterns, graph types and so on. All selected from pull down menu's. Here is where you get fussy.

You don't quite like this or that, and since the computer does all the work, you tell it - sorry sport, but change this that. By hand you wouldn't bother. But then, what's a couple more seconds of bit banging for the old workhorse anyway! Whoops, hope it doesn't hear!

When all this is done, and you have printed off your masterpiece, you can at any time reselect data mode, select a different set of data and redo the graph with a different set of selected data. Here comes another criticism, the previous format has been lost and you have to redo. Labels and all. A shame, as it would be nice to prepare a "template" chart and re-use it.

Charts produced include: area, bar, column, line, point, pie, unibar, non-scatter (x-y). Due to resolution limits, up to 25 rows and 50 columns of the grid can be defined. You'd be lucky to put all this on one page anyway.

Summing up

● *Geochart* is, in overall terms, worth the outlay for the sheer quality and versatility for data representation. Whether this be for a P&C group, home budgeting, small business,

church or community group reports, or at work, the results are very acceptable and worthwhile.

Documentation is A1. All facilities are functional, though some improvements could be made as mentioned (isn't 20/20 hindsight a great thing!).

Geochart is available from Computermate Products, 9 High Street, Mt. Kuring-Gai NSW 2080 ph (02) 457 8388. RRP \$39.95.

PS: Next issue, some gossip about big things happening to GEOS.

Programmers corner

● Last time, we looked at the overall development of a home grown GEOS application using *GeoProgrammer*. The main program module was presented. Perhaps you have had time to code up some of the sub-modules?

If you recall, the object of the application is to create plain ASCII sequential files, from a *Geowrite* file. One problem you may have encountered, is knowledge of how *Geowrite* stores data. Does it use "Pet ASCII"?

The answer to these is found in the *Geos Programmers Reference Guide*! As I have previously advocated, without this invaluable guide to GEOS, you are wasting your time, so get one.

Without going into a whole chapter on GEOS file structures, (this will take the whole issue), the *Geowrite* files use an extended sequential file structure, where each page of text is stored as a separate of chains of blocks (like mini sequential files). An index block holds the track and sector of the first data block of each page.

All text in *Geowrite* is in true ASCII, so no PetASCII conversions are needed. PetASCII is the parlance (Continued on page 44)

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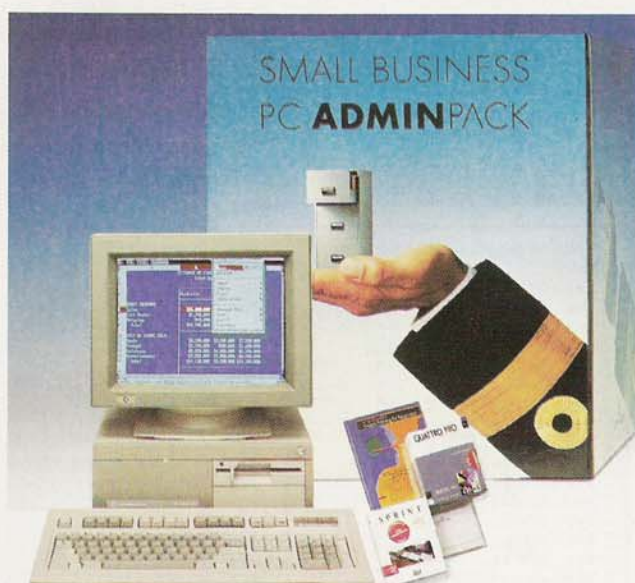
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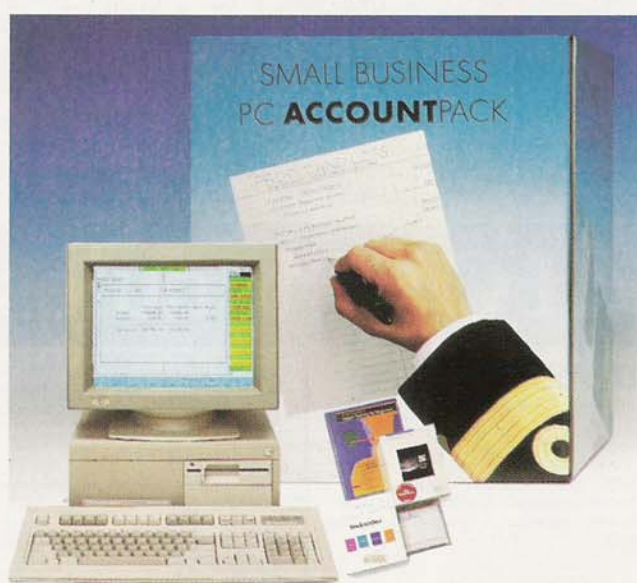
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Commodore



FREE INSTALLATION*

JSA COM 0473

for Commodore's great wisdom (?) for selecting a reverse uppercase/lowercase standard for internal characters.

Information about what fonts, paragraphs, margins, tab stops, and styles (bold, underlined etc) is also stored inline intermixed with normal text. Special fixed length delimited byte formats are used for this.

Again, this is all adequately explained in the Reference Guide. These need to be filtered out, as other word processors are very unlikely to use them. Our code must identify these strings, and weed them out, passing only the raw text.

Module listings accompany this article. Each major line of code is fully commented, and self explanatory. The pro-

gram which links all modules together is also listed.

The code takes an input file, and byte by byte analyses it for any of the format strings. It skips over these, and outputs bytes to a big output buffer in memory.

When finished with the document, (or the buffer is filled), the output file (Commodore prg or seq) is created. Here a modification could allow bigger files than the buffer (about 20k) to be handled, subject only to disk space limits!

Having typed in the code, assembled it and linked, you should have a functional tool. Correct any Assembler errors according to the messages received. The code presented works.

This article was prepared using *Geo-*

write, and *GeoASCII* for AC&AR. I am hopeful this will be available through the disk magazine service (please comment here andrew!).

Future topics

Well, there is a veritable gold mine of possibilities here! I want to look at GEOS's multi-tasking features (all in built - and you thought only the Amiga did it!). GEOS variable length indexed record system, an indepth look at *Geodebugger*, inter-task communications, and many more!

If you have any items you would like addressed, please write letters to the Editor and I'll be happy to comment on them. □

GEOS Modules

Doabout

.if pass1 ;only need to include these files

```
.nobl
.noecin
;during assembler's first pass.
.include geosym ;get geos definitions
.include geosmac ;get geos macro definitions
```

; local equates

```
.include geosclac ;get geosclac local equates
```

```
.gbl
.equin
.endif
```

```
doabout:
    jsr gotofirstmenu ;roll menu back up
```

```
loadw r0,#aboutbox ;db box definition table
```

```
jsr dodlbox ;put it up
rts ;all done
```

```
aboutbox:
    .byte set db pos | 1 ; set up a db position, pattern #1 - see page 230 ref man
```

```
    .byte def db top
    .byte def db bot + 16
    .word def db left
    .word def db right + 30
    .byte dbtxtstr ; put up a string
    .byte txt ln x ; standard x position
    .byte txt ln 1 y ; standard y position
    .word aboutst1 ; spiel about programme
    .byte dbtxtstr ; put up a string
    .byte txt ln x ; standard x position
    .byte txt ln 2 y ; standard y position
    .word aboutst2 ; spiel about programme
    .byte dbtxtstr ; put up a string
    .byte txt ln x ; standard x position
    .byte txt ln 3 y ; standard y position
    .word aboutst3 ; spiel about programme
    .byte dbtxtstr ; put up a string
    .byte txt ln x ; standard x position
    .byte txt ln 4 y ; standard y position
    .word aboutst4 ; spiel about programme
    .byte dbtxtstr ; put up a string
    .byte txt ln x ; standard x position
    .byte txt ln 5 y ; standard y position
    .word aboutst5 ; spiel about programme
    .byte dbtxtstr ; put up a string
    .byte txt ln x ; standard x position
```

```
    .byte txt ln 5 y + 16 ; standard y position
    .word aboutst6 ; spiel about programme
    .byte dbtxtstr ; return on mouse press
    .byte 0 ; end of db
```

```
aboutst1:
    .byte plaintext,"this geos programme takes a geowrite",0
aboutst2:
    .byte plaintext,"vllir data file and converts it to a native",0
aboutst3:
    .byte plaintext,"c-64 prg or seq file. this allows text & ",0
aboutst4:
    .byte plaintext,"data to be used in a non-geos environment.",0
aboutst5:
    .byte plaintext,"text files can be no longer than 20,000 chars",0
aboutst6:
    .byte plaintext,"graphics are simply ignored.",0
```

Dodrives

.if pass1 ;only need to include these files

```
.nobl
.noecin
;during assembler's first pass.
.include geosym ;get geos definitions
.include geosmac ;get geos macro definitions
```

; local equates

```
.include geosclac ;get geosclac local equates
```

```
.gbl
.equin
.endif
```

```
do drives:
    jsr gotofirstmenu ;roll menu back up
; put a db to determine new input file drive and output file drives - default is - a is input, b is output
```

```
loadw r0,#drivebox ; db box definition table
jsr dodlbox ; put it up
rts ; all done
```

drivebox:

```
    .byte def db pos | 1 ; standard db with pattern 1
```

```
    .byte dbtxtstr
    .byte txt ln x
    .byte txt ln 1 y
    .word drbtxt1
    .byte dbtxtstr
    .byte txt ln x
    .byte txt ln 2 y
    .word drbtxt2
    .byte dbtxtstr
    .byte txt ln x + 96
    .byte txt ln 2 y
    .word drbtxt3
    .byte dbtxtstr
    .byte txt ln x
    .byte txt ln 3 y
    .word drbtxt4
    .byte dbtxtstr
    .byte txt ln x + 48
    .byte txt ln 3 y
    .word drbtxt5
    .byte dbtxtstr
    .byte txt ln x + 96
    .byte txt ln 3 y
    .word drbtxt4
    .byte dbtxtstr
    .byte txt ln x + 96 + 48
    .byte txt ln 3 y
    .word drbtxt5
    .byte dbusricon
    .byte (txt ln x)/8
    .byte txt ln 4 y-8
    .word dra ln
    .byte dbusricon
    .byte (txt ln x+48)/8
    .byte txt ln 4 y-8
    .word dra out
    .byte dbusricon
    .byte (txt ln x+96)/8
    .byte txt ln 4 y-8
    .word drb in
    .byte dbusricon
    .byte (txt ln x+96+48)/8
    .byte txt ln 4 y-8
    .word drb out
    .byte ok ; this is the escape route
    .byte dbi x 1 ; ie standard centre
    .byte txt ln 5 y-2 ; ie bottom line
    .byte 0 ; end of db definition
```

```
drbtxt1:
    .byte plaintext,"select drive setup for file i/o",0
drbtxt2:
    .byte plaintext,"drive a",0
drbtxt3:
    .byte plaintext,"drive b",0
drbtxt4:
    .byte plaintext,"in",0
drbtxt5:
    .byte plaintext,"out",0
```

dra in:

```
    .word filledbox
    .byte 0 ; dummy x
    .byte 0 ; dummy y
    .byte 2 ; 2 bytes wide (16)
    .byte 16 ; height in pixels (16)
    .word dodra in
```

```
dra out:
    .word filledbox
    .byte 0 ; dummy x
    .byte 0 ; dummy y
    .byte 2 ; 2 bytes wide (16)
    .byte 16 ; height in pixels (16)
    .word dodra out
```

```
drb in:
    .word squarebox
    .byte 0 ; dummy x
    .byte 0 ; dummy y
    .byte 2 ; 2 bytes wide (16)
    .byte 16 ; height in pixels (16)
    .word dodrb in
```

```
drb out:
    .word squarebox
    .byte 0 ; dummy x
    .byte 0 ; dummy y
    .byte 2 ; 2 bytes wide (16)
    .byte 16 ; height in pixels (16)
    .word dodrb out
```

```
squarebox:
```

```
dodra in:
    lda indrive
    cmp #8
    beq 5$ ; ie this already the case - do nothing
```

```
jsr revindrvicons ; ie reverse the images
lda #8
sta indrive ; ie set the value in indrive
lda #filledbox ; ie adjust icon bitmap
```

```
pointers for next time
sta dra in
lda #filledbox
sta dra in+1
lda #squarebox
sta drb in
lda #squarebox
sta drb in+1
```

```
5$:
    rts
dodra out:
```

```
lda outdrive
cmp #8
beq 5$ ; ie this already the case - do nothing
jsr revoutdrvicons ; ie reverse the images
lda #8
sta outdrive ; ie set the value in indrive
lda #filledbox ; ie adjust icon bitmap
pointers for next time
sta dra out
lda #filledbox
sta dra out+1
lda #squarebox
```

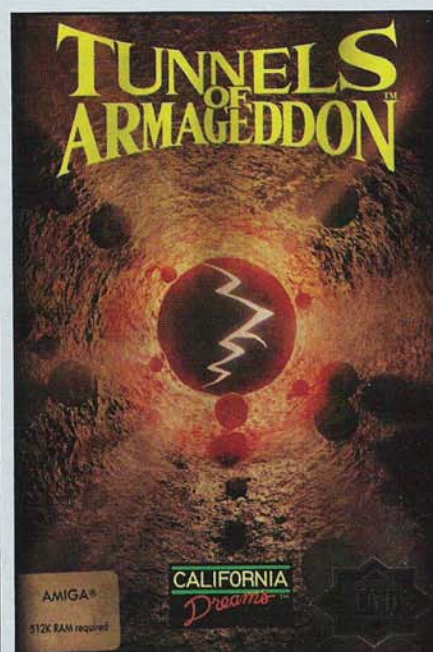
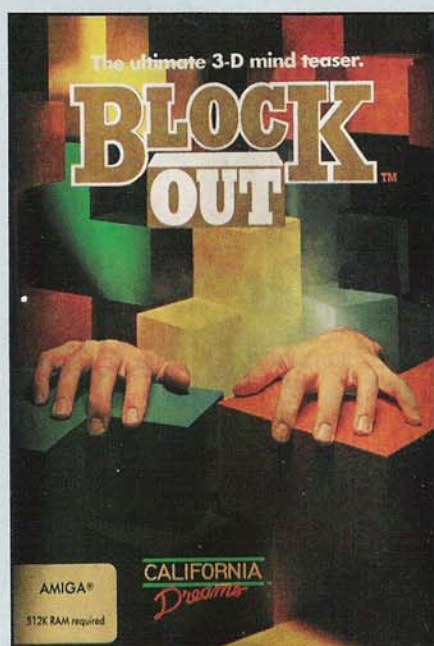
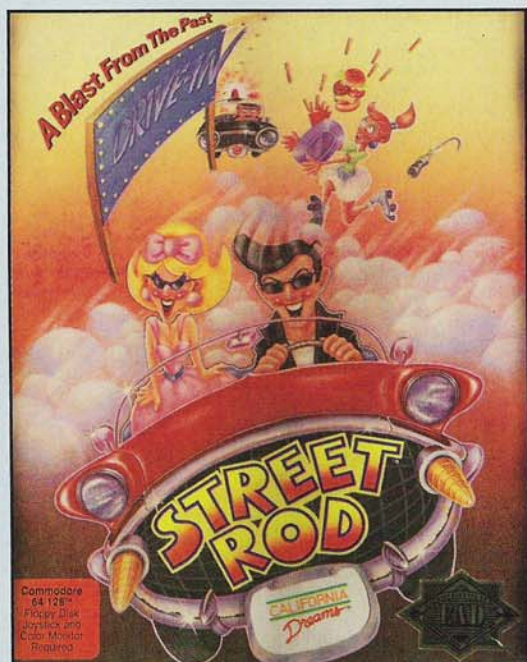
(continued on page 48)



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```

sta drb out
lda #squarebox
sta drb out+1
5$:
rts
dodrb in:
lda indrive
cmp #9
beq 5$ ; ie this already the case - do
nothing
jsr revindrvicons ; ie reverse the images
lda #9
sta indrive ; ie set the value in indrive
lda #filledbox ; ie adjust icon bitmap
pointers for next time
sta drb in
lda #filledbox
sta drb in+1
lda #squarebox
sta dra in
lda #squarebox
sta dra in+1
5$:
rts
dodrb out:
lda outdrive
cmp #9
beq 5$ ; ie this already the case - do
nothing
jsr revoutdrvicons ; ie reverse the images
lda #9
sta outdrive ; ie set the value in indrive
lda #filledbox ; ie adjust icon bitmap
pointers for next time
sta drb out
lda #filledbox
sta drb out+1
lda #squarebox
sta dra out
lda #squarebox
sta dra out+1
5$:
rts
indrive:
.byte 8 ; 8 or 9 (8 default)
outdrive:
.byte 8 ; 8 or 9 (8 default)
revindrvicons:
; now prepare to reverse video the a & b input
drive icons
loadb r2l,(def db top+txt in 4 y-8+1) ; ie
top y
loadb r2h,(def db top+txt in 4 y-8+15-1) ;
ie bottom y
loadw r3,(def db left+txt in x+96+1) ; ie
left x
loadw r4,(def db left+txt in x+96+15-1) ;
ie right x
jsr invertrectangle ; do it baby
; now prepare to reverse video the program
icon
loadb r2l,(def db top+txt in 4 y-8+1) ; ie
top y
loadb r2h,(def db top+txt in 4 y-8+15-1) ;
ie bottom y
loadw r3,(def db left+txt in x+1) ; ie left x
loadw r4,(def db left+txt in x+15-1) ; ie
right x
jsr invertrectangle ; do it baby
rts
revoutdrvicons:
; now prepare to reverse video the sequential
icon
loadb r2l,(def db top+txt in 4 y-8+1) ; ie
top y
loadb r2h,(def db top+txt in 4 y-8+15-1) ;
ie bottom y
loadw r3,(def db left+txt in x+96+48+1) ;
ie left x
loadw r4,(def db left+txt in x+96+48+15-1) ; ie right x
jsr invertrectangle ; do it baby
; now prepare to reverse video the program
icon
loadb r2l,(def db top+txt in 4 y-8+1) ; ie
top y
loadb r2h,(def db top+txt in 4 y-8+15-1) ;
ie bottom y
loadw r3,(def db left+txt in x+48+1) ; ie
left x
loadw r4,(def db left+txt in x+48+15-1) ;

```

```

ie right x
jsr invertrectangle ; do it baby
rts

Dofileext
.if pass1 ;only need to include these files
.noglbl
.noecin
;during assembler's first pass.
.include geosym ;get geos definitions
.include geosmac ;get geos macro
definitions
; local equates
.include geoscloc ;get geosclii local
equates
.glbl
.ecin
.endif
dofiletype:
jsr gotofirstmenu ;roll menu back up
; put up a db to get a new default c-64 file
type - ie prg or seq
; purely a cosmetic item but will affect some
non-geos word processors and program
; environments
loadw r0,#filetypbox ; db box definition
table
jsr dodlgbox ; put it up
rts ; all donefiletypbox:
.byte def db pos | 1
.byte dbtxtstr
.byte txt in x
.byte txt in 1 y
.word typext1
.byte dbtxtstr
.byte txt in 2 y
.word typext2
.byte dbtxtstr
.byte txt in x
.byte txt in 3 y
.word typext3
.byte dbtxtstr
.byte txt in x+96
.byte txt in 3 y
.word typext4
.byte dbusricon
.byte (txt in x+96)/8
.byte txt in 4 y-8
.word seqicon
.byte ok
.byte dbi x 1
.byte txt in 5 y - 4
.byte 0 ; end of db definition
typext1:
.byte plaintext,"select required output file
type",0
typext2:
.byte plaintext,"ie: native c64
1541/1571/1581 type",0
typext3:
.byte plaintext,"program (prg)",0
typext4:
.byte plaintext,"sequential (seq)",0
prgicon:
.word filledbox ; this is the default only
.byte 0 ; dummy x
.byte 0 ; dummy y
.byte 2 ; 2 bytes wide (16)
.byte 16 ; height in pixels (16)
.word doprgicon
seqicon:
.word squarebox ; this is the default only
.byte 0 ; dummy x
.byte 0 ; dummy y
.byte 2 ; 2 bytes wide (16)
.byte 16 ; height in pixels (16)
.word doseqiconfilledbox:
doprgicon:
lda outfiletype
cmp #($80 | prg)
beq 5$ ; ie this already the case - do
nothing
jsr reverseicons ; ie reverse the images
lda #($80 | prg)
sta outfiletype ; ie set the value in doopen
routine
lda #filledbox ; ie adjust icon bitmap
pointers for next time
sta prgicon
lda #filledbox
sta prgicon+1
lda #squarebox
sta seqicon
lda #squarebox
sta seqicon+1
5$:
rts
doseqicon:
lda outfiletype
cmp #($80 | seq)
beq 5$ ; ie this already the case - do
nothing
jsr reverseicons ; ie reverse the images
lda #($80 | seq)
sta outfiletype ; ie set the value in doopen
routine
lda #filledbox ; ie adjust icon bitmap
pointers for next time
sta seqicon
lda #filledbox
sta seqicon+1
lda #squarebox
sta prgicon
lda #squarebox
sta prgicon+1
5$:
rts
reverseicons:
; now prepare to reverse video the sequential
icon
loadb r2l,(def db top+txt in 4 y-8+1) ; ie
top y
loadb r2h,(def db top+txt in 4 y-8+15-1) ;
ie bottom y
loadw r3,(def db left+txt in x+96+1) ; ie
left x
loadw r4,(def db left+txt in x+96+15-1) ;
ie right x
jsr invertrectangle ; do it baby
; now prepare to reverse video the program
icon
loadb r2l,(def db top+txt in 4 y-8+1) ; ie
top y
loadb r2h,(def db top+txt in 4 y-8+15-1) ;
ie bottom y
loadw r3,(def db left+txt in x+1) ; ie left x
loadw r4,(def db left+txt in x+15-1) ; ie
right x
jsr invertrectangle ; do it baby
rts
Dofiletype
.if pass1 ;only need to include these files
.noglbl
.noecin
;during assembler's first pass.
.include geosym ;get geos definitions
.include geosmac ;get geos macro
definitions
; local equates
.include geoscloc ;get geosclii local
equates
.glbl
.ecin
.endif
dofiletype:
jsr gotofirstmenu ;roll menu back up
; put up a db to get a new default c-64 file
type - ie prg or seq
; purely a cosmetic item but will affect some
non-geos word processors and program
; environments

```

```

lda outfiletype
cmp #($80 | prg)
beq 5$ ; ie this already the case - do
nothing
jsr reverseicons ; ie reverse the images
lda #($80 | prg)
sta outfiletype ; ie set the value in doopen
routine
lda #filledbox ; ie adjust icon bitmap
pointers for next time
sta prgicon
lda #filledbox
sta prgicon+1
lda #squarebox
sta seqicon
lda #squarebox
sta seqicon+1
5$:
rts
doseqicon:
lda outfiletype
cmp #($80 | seq)
beq 5$ ; ie this already the case - do
nothing
jsr reverseicons ; ie reverse the images
lda #($80 | seq)
sta outfiletype ; ie set the value in doopen
routine
lda #filledbox ; ie adjust icon bitmap
pointers for next time
sta seqicon
lda #filledbox
sta seqicon+1
lda #squarebox
sta prgicon
lda #squarebox
sta prgicon+1
5$:
rts
reverseicons:
; now prepare to reverse video the sequential
icon
loadb r2l,(def db top+txt in 4 y-8+1) ; ie
top y
loadb r2h,(def db top+txt in 4 y-8+15-1) ;
ie bottom y
loadw r3,(def db left+txt in x+96+1) ; ie
left x
loadw r4,(def db left+txt in x+96+15-1) ;
ie right x
jsr invertrectangle ; do it baby
; now prepare to reverse video the program
icon
loadb r2l,(def db top+txt in 4 y-8+1) ; ie
top y
loadb r2h,(def db top+txt in 4 y-8+15-1) ;
ie bottom y
loadw r3,(def db left+txt in x+1) ; ie left x
loadw r4,(def db left+txt in x+15-1) ; ie
right x
jsr invertrectangle ; do it baby
rts
Dofiletype
.if pass1 ;only need to include these files
.noglbl
.noecin
;during assembler's first pass.
.include geosym ;get geos definitions
.include geosmac ;get geos macro
definitions
; local equates
.include geoscloc ;get geosclii local
equates
.glbl
.ecin
.endif
dofiletype:
jsr gotofirstmenu ;roll menu back up
; put up a db to get a new default c-64 file
type - ie prg or seq
; purely a cosmetic item but will affect some
non-geos word processors and program
; environments

```

```

loadw r0,#filetypbox ; db box definition
table
jsr dodlgbox ; put it up
rts ; all donefiletypbox:
.byte def db pos | 1
.byte dbtxtstr
.byte txt in x
.byte txt in 1 y
.word typext1
.byte dbtxtstr
.byte txt in 2 y
.word typext2
.byte dbtxtstr
.byte txt in x
.byte txt in 3 y
.word typext3
.byte dbtxtstr
.byte txt in x+96
.byte txt in 3 y
.word typext4
.byte dbusricon
.byte (txt in x+96)/8
.byte txt in 4 y-8
.word seqicon
.byte ok
.byte dbi x 1
.byte txt in 5 y - 4
.byte 0 ; end of db definition
typext1:
.byte plaintext,"select required output file
type",0
typext2:
.byte plaintext,"ie: native c64
1541/1571/1581 type",0
typext3:
.byte plaintext,"program (prg)",0
typext4:
.byte plaintext,"sequential (seq)",0
prgicon:
.word filledbox ; this is the default only
.byte 0 ; dummy x
.byte 0 ; dummy y
.byte 2 ; 2 bytes wide (16)
.byte 16 ; height in pixels (16)
.word doprgicon
seqicon:
.word squarebox ; this is the default only
.byte 0 ; dummy x
.byte 0 ; dummy y
.byte 2 ; 2 bytes wide (16)
.byte 16 ; height in pixels (16)
.word doseqiconfilledbox:
doprgicon:
lda outfiletype
cmp #($80 | prg)
beq 5$ ; ie this already the case - do
nothing
jsr reverseicons ; ie reverse the images
lda #($80 | prg)
sta outfiletype ; ie set the value in doopen
routine
lda #filledbox ; ie adjust icon bitmap
pointers for next time
sta prgicon
lda #filledbox
sta prgicon+1
lda #squarebox
sta seqicon
lda #squarebox
sta seqicon+1
5$:
rts
doseqicon:
lda outfiletype
cmp #($80 | seq)
beq 5$ ; ie this already the case - do
nothing
jsr reverseicons ; ie reverse the images
lda #($80 | seq)
sta outfiletype ; ie set the value in doopen
routine
lda #filledbox ; ie adjust icon bitmap
pointers for next time
sta seqicon
lda #filledbox
sta seqicon+1

```

GEOS: The column • GEOS

```
lda #squarebox
sta prgicon
lda #squarebox
sta prgicon+1

5$:
rts
reverseicons:
; now prepare to reverse video the sequential
icon
loadb r2l,(def db top+txt ln 4 y-8+1) ; ie
top y
loadb r2h,(def db top+txt ln 4 y-15-1) ; ie
bottom y
loadw r3,(def db left+txt ln x+96+1) ; ie
left x
loadw r4,(def db left+txt ln x+96+15-1) ; ie
right x
jsr invertrectangle ; do it baby
; now prepare to reverse video the program
icon
loadb r2l,(def db top+txt ln 4 y-8+1) ; ie
top y
loadb r2h,(def db top+txt ln 4 y-15-1) ; ie
bottom y
loadw r3,(def db left+txt ln x+1) ; ie left x
loadw r4,(def db left+txt ln x+15-1) ; ie
right x
jsr invertrectangle ; do it baby
rts
```

Dopetscii

```
.if pass1 ;only need to include these files

.nogbl
.noegln
;during assembler's first pass.
.include geosym ;get geos definitions
.include geosmac ;get geos macro
definitions

; local equates

.include geoscloc ;get geosclii local
equates

.gbl
.eqin
.endif

dopetscii:
jsr gotofirstmenu ;roll menu back up

rts ;stub at the moment - not
implemented

; put up a db to prompt user for pet ascl
conversion if required

loadw r0,#petscilbox ;db box definition
table
jsr dodlgbox ;put it up
rts ;all done
petscilbox:
byte 0 ;end of db definition
```

Doquit

```
.if pass1 ;only need to include these files

.nogbl
.noegln
;during assembler's first pass.
.include geosym ;get geos definitions
.include geosmac ;get geos macro
definitions

; local equates

.include geoscloc ;get geosclii local
equates

.gbl
.eqin
.endif

doquit:
jsr gotofirstmenu ;roll menu back up
jmp enterdesktop ;return to desktop!
```

Geoasc.Ink

```
geoasc.Ink

;this is the geolinker command file for the
geoprogrammer package
sample application.

;copyright (c) 1987 berkeley softworks. for the
sole use of registered
geoprogrammer owners.

.output geoascil ;name for output file
.header geoaschr.rel ;name of file
containing header block to use

.seq ;this is a sequential application

.psect $0400 ;program code starts at $0400

geoasc.rel ;main module
doabout.rel ;event handler
doopen.rel ;event handler
doquit.rel ;event handler
dodrives.rel ;event handler
dofileext.rel ;event handler
dofiletype.rel ;event handler
dopetscii.rel ;event handler
```

Geoaschr

```
geoaschr

;this file contains the header block definition
for the geosclii sequential application.

.if pass1 ;only need to include this file
;during assembler's first pass.
.include geosym ;get geos definitions
.endif

;here is our header. the geoasc.Ink file will
instruct the linker
to attach it to our sample application.

.header ;start of header section

.word 0 ;first two bytes are always zero
.byte 3 ;width in bytes
.byte 21 ;and height in scanlines of:

.byte $80 |usr ;commodore file type, with
bit 7 set.
.byte application ;geos file type
.byte sequential ;geos file structure type
.word progstart ;start address of program
(where to load to)
.word $3ff ;usually end address, but only
needed for
;desk accessories.
.word progstart ;init address of program
(where to jmp to)
.byte "geosclii v1.0",0,0,0,$00
;permanent filename: 12 characters,
followed by 4 character version
number,
;followed by 3 zeroes,
followed by 40/80 column flag.
.byte "bruce r.c. lyon "0
;twenty character author name

;end of header section which is checked for
accuracy
.block 160-117 ;skip 43 bytes...
.byte "this converts a geowrite document"
.byte "to a plain ascl sequential file",0
.endif
```

Geoascloc

```
; local equates

db icon x 2 == 17
size in buffer == 4000
```

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C64 Sound and Graphics Pt 5

A simple maze program

Yet another look at BASIC by **Greg Perry**, who now has us all amazed in a BASIC maze.

NOW THAT WE have seen some general examples of how to use simple graphics, we can combine them to make a simple game program. The program will be a randomly created maze which the player must negotiate in a given time.

To write the program, first we must decide on exactly what the program must do. So, try these rules:

1. The maze will be negotiated from top left to bottom right.

2. The maze obstacles will be constructed by randomly POKEing the screen RAM with the C= and "+" graphics character [] and the colour RAM with yellow. Since this is random, not all mazes will be negotiable.

3. The player token will be a "heart" character, shifted "S" [S] and the target will be the shifted "+" character [+].

4. If we use the flashing border routine for the introduction, this will form the outside wall of the maze. This leaves us a maze of 38 columns by 23 rows.

5. The player will initially have 2 minutes to negotiate the maze. After each successful game the degree of difficulty will be slightly increased by making the maze more complex and decreasing the time available.

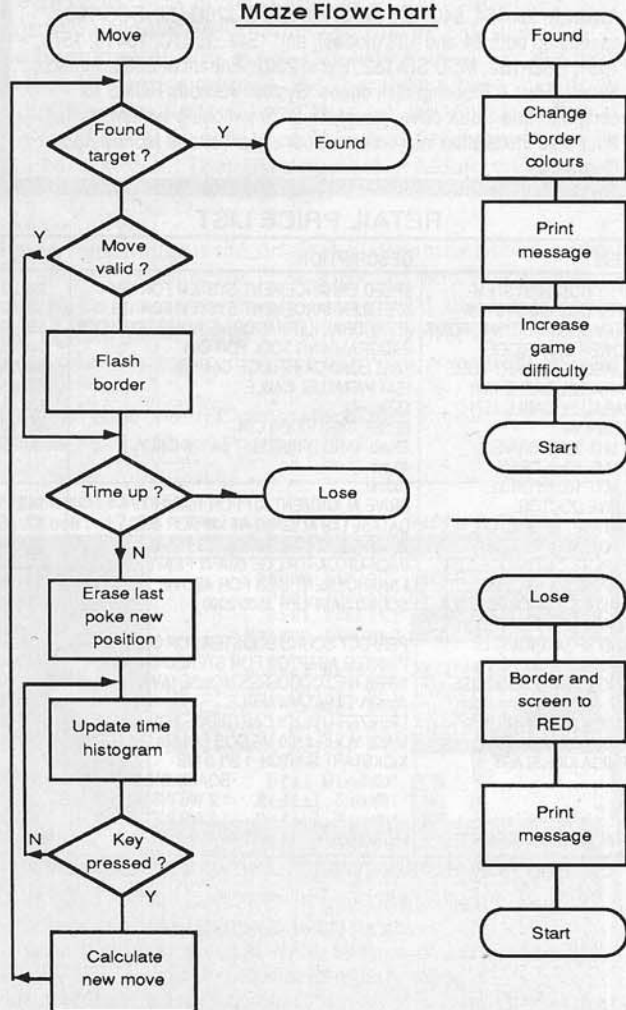
6. For illegal moves, either the wrong key pressed or attempted move into a wall, the border will flash red.

7. We must keep track of the number of games, best time so far, and time taken for last game.

We could program the movement by using a joystick but in the first instance we will do this more simply by making our movement with the eight keys centered on the "H" key.

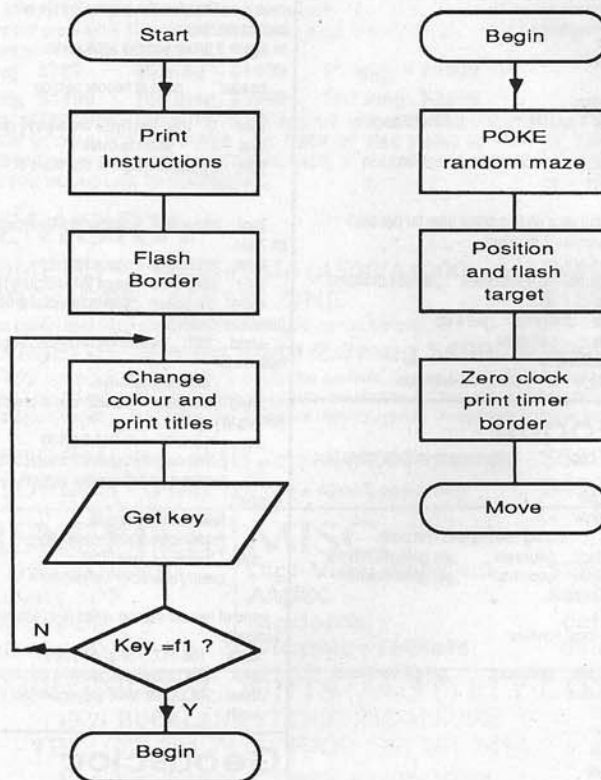
We can now start to work out the parameters for the over-all program and draw a simple flowchart

Maze Flowchart



A few final comments

1. To clear the screen after the start of the game, we cannot simply PRINT "[CLR]", since this would erase the border. The method used is to POKE a space character (screen code 32) to all the screen locations inside the border while drawing the maze.



2. The degree of difficulty for the maze will be selected by comparing a random number (value 0-1) against R, set initially to 0.25. If the random number is less than R, a maze obstacle will be POKED to the screen RAM. To increase the difficulty, we can now simply increase the value of R. As the value of R increases more maze obstacles will appear.

3. Initially, the game time is set to 7200 jiffies = 120 seconds. Difficulty is increased by making initial time shorter by 10 seconds (600 jiffies) after each successful game.

4. Legal movement is checked by PEEKing the next screen RAM position. If this is a space (screen code 32) then the position is legal. If it is not a [+] character (code 91, the target), then it must be either a wall or the border.

5. Since the player's token is positioned on the screen and the playing area is surrounded by the border, we can simplify the movement checking routine. We do not need to check if the position is still within the screen RAM, since we must contact the border before this happens.

6. Both the flashing border and timer programs discussed previously are used. However, they are modified slightly. For example, the timer histogram is split into two parts, the time border and the actual histogram.

Exercise

● See how much of the program you can code before looking at the listing which follows.

Program: MAZE

```
10 REM (C) GREG PERRY, BRISBANE 1984
100 REM MAZE PROGRAM
110 REM SR:START OF SCREEN RAM = 1024
120 REM SE:END OF SCREEN RAM = 2023
130 REM CR:START OF Colour RAM = 55296
140 REM CE:START OF Colour RAM = 56295
150 REM BC:BORDER Colour REG. = 53280
160 REM SC:SCREEN Colour REG. = 53281
170 REM T%:GAME TIME BT%=BEST TIME
180 REM R :DIFFICULTY OF MAZE
190 REM PC:PLAYER CHARACTER
200 REM CH:BORDER CHARACTER
210 REM C1 & C2 BORDER POKE ColourS
220 REM P :CURRENT SCREEN RAM POSITION
230 REM X : LAST SCREEN RAM POSITION
240 REM H & V CURRENT HORIZ & VERT
250 SR=1024:SE=2023:CR=55296:CE=56295
260
BC=53280:SC=53281:T=7200:R=.25:BT%=12
0
270 CH=81:C1=2:C2=7:PC=8
```

```
280 POKE 650,128:REM REPEAT ALL KEYS
290 REM READ CHARACTERS FOR BORDER
300 FOR I=1 TO 5:READ A
310 CH$(I)=CHR$(A):IF I>3 THEN CH$(I)=[RVS]+CH$(I)
320 NEXT
330 GOTO 820
340 REM BEGIN GAME
350 REM POKE MAZE SCREEN
360 POKE BC,6
370 FOR I=41 TO 41*20 STEP 40:POKE SC,RND (0)*16
380 FOR J=0 TO 37:POKE SR+I+J,32:IF RND (0)<R THEN POKE SR+I+J,102:POKE CR+I+J,7
390 NEXT :NEXT :POKE SC,6
400 REM POSITION TARGET
410 POKE SR+838,91:FOR I=1 TO 20:POKE CR+838,1:FOR J=1 TO 100:NEXT
420 POKE CR+838,4:FOR J=1 TO 10:NEXT:NEXT
430 GOSUB 1180
440 TI$="000000":P=41:POKE 198,0:GOTO 500
450 REM MOVEMENT CHECK
460 IF PEEK (SR+P)=91 THEN T%=TI/60:GOTO 650
470 IF PEEK (SR+P)32 THEN P=X:POKE BC,2:FOR I=1 TO 200:NEXT:POKE BC,5
480 IF TI>T THEN T%=TI/60:GOTO 780
490 POKE SR+X,32
500 POKE SR+P,PC:X=P
510 POKE CR+P,3
520 GOSUB 1120:IF TI>T THEN 480
530 GET A$:IF A$="" THEN 510
540 H=0:V=0:IF A$="J" THEN H=1
550 IF A$="G" THEN H=-1
560 IF A$="T" THEN H=-1:V=-1
570 IF A$="U" THEN H=1:V=-1
580 IF A$="Y" THEN V=-1
590 IF A$="N" THEN V=1
600 IF A$="B" THEN H=-1:V=1
610 IF A$="M" THEN H=1:V=1
620 REM ADJUST TO ON-SCREEN
630 X=P:P=P+H+V*40
640 GOTO 450
650 REM FOUND
660 PRINT "[CLR]":POKE SC,6
670 FOR I=1 TO 10:POKE 214,10:PRINT
680 POKE BC,2:PRINT TAB(10)"[RVS]CONGRATULATIONS"
690 PRINT TAB(12)"[RVS,DOWN]WELL
```

```
[SPACE]DONE"
700 FOR J=1 TO 50:NEXT
710 POKE 214,10:PRINT
720 POKE BC,6:PRINT TAB
(10)"CONGRATULATIONS"
730 PRINT TAB(12)"[DOWN]WELL
[SPACE]DONE"
740 FOR J=1 TO 50:NEXT:NEXT
750 IF BT%>T% THEN BT%=T%
760 R=R+.025:T=T-600
770 GOTO 820
780 REM LOSE
790 POKE BC,2:POKE SC,2
800 PRINT "[CLR]":POKE 214,10:PRINT:PRINT TAB(12)"TIME'S[SPACE]UP!"
810 FOR J=1 TO 4000:NEXT
820 REM START
830 POKE BC,10:POKE SC,6:POKE 198,0
840 PRINT "[CLR,DOWN2]" TAB
(12)"A-MAZING"
850 PRINT TAB(8)"[DOWN]MOVEMENT
[SPACE]KEYS[SPACE]ARE"
860 PRINT TAB(13)"[DOWN]T[SPACE2]Y
[SPACE2]U"
870 PRINT TAB(13)"
[SPACE,M,SPACE,-,SPACE,N,SPACE]"
```

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```

880 PRINT TAB(13)"
[SPACE2,M,-,N,SPACE2,DOWN]"
890 PRINT TAB(13)"G**",SPACE,**,SPACEJ
[DOWN]"
900 PRINT TAB(13)"[SPACE2,N,-,M]"
910 PRINT TAB(13)"
[SPACE,N,SPACE,-,SPACE,M]"
920 PRINT TAB(13)"V[SPACE2]B[SPACE2]N
[DOWN]"
930 PRINT TAB(6)"[DOWN]NO[SPACE]OF
[SPACE]GAMES[SPACE4]:"N
940 PRINT TAB(6)"BEST[SPACE]TIME
[SPACE6]:"BT%"SECS"
950 PRINT TAB(6)"TIME[SPACE]LAST
[SPACE]GAME[SPACE]:"T%"SECS"
960 N=N+1
970 REM FLASHING BORDER
980 FOR I=0 TO 39 STEP 2
990 POKE SR+I,CH: POKE CR+I,C1
1000 POKE SR+I+1,CH: POKE CR+I+1,C2
1010 POKE SE-40*3-I,CH: POKE
CE-40*3-I,C1
1020 POKE SE-40*3-I-1,CH: POKE
CE-40*3-I-1,C2
1030 NEXT I: POKE BC, RND (0)*16
1040 FOR J=20 TO 0 STEP -2
1050 POKE SR+J*40,CH: POKE CR+J*40,C1
1060 POKE SR+(J+1)*40,CH: POKE CR+
(J+1)*40,C2
1070 POKE SE-40*3-J*40,CH: POKE
CE-40*3-J*40,C1
1080 POKE SE-40*3-(J+1)*40,CH: POKE

```

```

CE-40*3-(J+1)*40,C2
1090 NEXT
1100 GOSUB 1240: IF A$=CHR$(133) THEN
340
1110 Z=C1:C1=C2:C2=Z: GOTO 970
1120 REM TIMER
1130 POKE 214,22: PRINT : POKE 646,5:
PRINT TAB(6);
1140 A=(TI/T)*194
1150 B%=A/6:C%=A-B%*6
1160 IF B%<1 THEN PRINT CH$(C%):
RETURN
1170 FOR K=1 TO B%: PRINT "
[RV,S,SPACE,OFF]"; NEXT : PRINT CH$
(C%): RETURN
1180 REM TIME BORDER
1190 POKE 214,22: PRINT : FOR I=1 TO 39:
PRINT "[SPACE]"; NEXT : PRINT
1200 POKE 214,21: PRINT : PRINT TAB(5)"
[YEL,]"; FOR I=5 TO 36: PRINT "[I]"; NEXT :
PRINT "[I]"
1210 PRINT "TIME[SPACE,]"; TAB(38)"[I]"
1220 PRINT TAB(5)"[I]"; FOR I=5 TO 36:
PRINT "[I]"; NEXT: PRINT "[I]"; RETURN
1230 REM TITLES
1240 POKE 214,22:: PRINT : POKE 646,C1+1
1250 PRINT TAB(10)"PRESS[SPACE]F1"
[SPACE]TO[SPACE]START"
1260 POKE 646,C1+1: PRINT "
[HOME,DOWN2]" TAB(12)"[RV,S]A-MAZING"
1270 GET AS: RETURN
1280 REM DATA FOR TIMER

```

1290 DATA 180,181,161,182,170

Exercises

● Try changing the difficulty of the game. Either in Line 260 or Line 760.

Add an abort key, say f3, check for it with movement, leave game and return to start.

Change colours used for error routine

● There are a number of improvements which could profitably be made to give a better program. Try these as exercises.

1. Keep a count of the number of times an obstacle is struck

2. Ensure that each maze is negotiable.

3. Add a sledge hammer to destroy the annoying walls.

4. Optionally, save each maze so that it may be replayed or different players can try the same one.

5. Can you add a joystick routine to replace the keyboard movement? (See Appendix 2.).

(Extract from *Graphics and sound on the C64* (c) Dr Greg Perry, Brisbane, 1986.) □

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G GO	R REGISTER	\$ DIRECTORY
H HUNT		DOS Commands

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The printer PSET functions are:

PSET 0 -	Self detection Serial/Centronics.
PSET 1 -	EPSON mode only.
PSET 2 -	SMITH-CORONA mode only
PSET 3 -	Turns the printing 90 degrees!!
PSET 4 -	HARDCOPY setting for MPS802/1526.

PSET B -	Bit-image mode.
PSET C -	Setting Lower/Upper case and sending Control Codes.
PSET T -	All characters are printed in an unmodified state.

PSET U -	Runs a serial printer and leaves the User-Port available.
PSET Sx -	Sets the secondary address for HARDCOPY with Serial Bus.
PSET L1 -	Adds a line-feed, CHR\$(10) after every line.
PSET L0 -	Switches PSET L1 off.

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Coming to grips with the Amiga's CLI

A tutorial for beginners Pt 2

by Andrew Leniart

WELCOME TO THE second installment in the series of coming to grips with the Amiga's Command Line Interface.

First, a short re-cap from last month, we discussed among other things, that we had two means of viewing a disks contents in the CLI; with the most informative way being with the LIST command. Protection bit's were mentioned briefly, and we will discuss those in a bit more depth shortly. First though, lets look at some of the...

Similarities with Workbench and the CLI

- When you click on the Workbench disk icon, you get a window filled with drawers. But what is this window in the Cli and what are the drawers? What will follow is a description of various things visible on the Workbench and what their equivalents are in the Cli.

The main window which appears when a disk icon is clicked is the same thing as the Root Directory when working in the Cli. The drawers you see are the Sub-Directories in the Root directory. In other words, Drawers are all directories with pictures (Icons) accompanying the names instead of the (Dir) you get when in the Cli.

Tools in the workbench such as Clock are referred to as Programs in the Cli, while Projects such as a document icon from a word processor would be called a File.

Likewise equivalents can be pointed out when performing certain tasks in both environments. For example Dragging an icon from one disk to another would be the same as using the Copy command. Moving an icon into another drawer would be achieved with the Rename command in the Cli and so on.

It may take a little while for some of you to fully grasp this concept if the Amiga is your first ever computer, but don't worry about this. Once you have worked

with the Cli for a few sessions, you will soon begin to see the relationship between the two.

A little hint if you do have trouble; Get another member of the family or an interested friend and begin to explain the whole concept to them. You'll be surprised at how quickly you will learn yourself if you have to try to teach someone else what you're trying to learn.

Don't laugh. This is a proven method of learning! Try it... Anyway, on with the show.

Protection bits

- Workbench 1.2 gave us four protection bits (or flags) with which to protect our files, those being: Read, Write, Execute and Delete. With the arrival of the 1.3 upgrade came four more: Hidden, Script, Pure and Archived. Their purpose or meanings are this:-

H. (Hidden)-controls the visibility of certain file entries

S. (Script)-controls starting script files without Execute

P. (Pure)-controls program loading using the Resident command

A. (Archived)-controls the option of copying files under Kickstart 1.3

R. (Read)-allows a file to be read

W. (Write)-allows a file to be written to

E. (Execute)-allows an "execute" on the file

D. (Delete)-allows a file to be deleted

In a bit more detail

- With the (H)idden bit set, you can hide an .info file so that these files do not appear when you do a dir command. This makes for a less cluttered Cli listing.

The (S)cript protection bit allows a script file to be started from a Shell or Cli without the need for the Execute command. This is so because a set script flag automatically calls an Execute command.

Some commands or programs require the (P)ure flag to be set if they are going

to be made Resident. This is because not every program has the qualities needed for being made resident. (More on the Resident command later).

I must admit that the use of the (A)rchive flag still remains a little cloudy for me. According to my reference manual, it controls the option of copying when using the 1.3 version of Kickstart.

The COPY command only copies files that have unset archive protection bits. Note that when a file is written to, the archive bit unsets, so must be reset if you want the status of the file to remain archived.

Use of the (R)ead bit enables and disables the ability to read from any particular file.

You can prevent writing to any file by setting the (W)rite protection bit accordingly. If you try to write to a file with this bit set, the Amiga will give you an error message.

Setting the (E)ecute flag will allow or disallow the file to be started with the use of the execute command.

And finally, you may prevent a file from accidental deletion with the use of the (D)delete protection bit.

To check the status of any file in regard to protection bits, we use the LIST command. To set the flags to suit ourselves, we must use the PROTECT command. For example, lets say a file named My-File has a protection status of —rwed and we wanted to make it undeletable. We would enter in the CLI:

Protect Df0:My-File -d which would give My-File a status of —rwe- making it undeletable. The same argument goes for any of the protection bits. To enable My-File to be deleted once again would require:

Protect Df0:My-File —rwed Protect Df0:My-File +d The best way of understanding the use this feature is to play around with it. Make a copy of a disk with some files and just experiment with all the various flags. Set the delete protection bit and try to delete the file, or set

(Continued on page 56)

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REMEMBER AT ALL TIMES YOU ARE INTERROGATING THE PROGRAM IN ITS "FROZEN" STATE WITH ALL MEMORY AND REGISTERS INTACT - INVALUABLE FOR THE DE-BUGGER OR JUST THE INQUISITIVE!

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the read bit and try to type the file. Things will quickly become much more clearer.

Duplicating a disk with diskcopy

● To duplicate a disk on Workbench, you would click the disk icon and select Duplicate from the pull down menu. The equivalent to this in the Cli is the DISK-COPY command.

If you enter "Diskcopy ?" in the Cli, the Amiga responds with "usage disk-copy FROM/A, TO/A, NAME". This is the command template. To copy a whole disk using only the internal drive, the following example may be used:

Diskcopy from Df0: to Df0:

Likewise, to do the same with two drives: Diskcopy from Df0: to Df1: would copy a disk from Df0: to df1. Once one of these commands is entered, all you need do is follow the directions given by your machine.

Diskcopy has an advantage over the Workbench' Duplicate command as you can specify a name for the destination disk with the NAME argument. The next example copies a disk from the internal drive Df0: to an external drive Df1: and names the copied disk "AnyName".

DiskCopy from Df0: to Df1: Name AnyName

Lastly, if you change your mind you can abort the copying process at any time by pressing on the keyboard. The Amiga responds with:

*** BREAK Disk Copy Terminated

Rename and relabel

● You can change the name of any disk or file by using one of the above commands in the Cli. RENAME is used for files and directories, while RELABEL changes the name of a disk. Usage of these two is as follows:

To change the name of My-File to His-File in the root directory of a disk in drive Df0: you would merely enter

Rename Df0:My-File to Df0:His-File

Same thing goes for directories. It is

even possible to MOVE a file from one directory to another by specifying the complete pathnames using the rename command. To move His-File from the root directory to the disks "S" directory, all that would be required is:

Rename Df0:His-File to Df0:s/His-File
OR

you can move and rename a file both at the same time. For example:

Rename Df0:s/His-File to Df0:My-File would effectively place His-File back in the disks root directory under the original name of My-File. If all this sounds a bit confusing, just try it and you'll soon see things much more clearly.

The concept of the Relabel command is much simpler to grasp. Enter "Relabel ?" in the Cli and the command template comes up as

Relabel DRIVE/A, NAME/A

So to change the name of a disk in drive df1: to something like My-Games, all that is required is:

Relabel Df1: My-Games

Note that if you wish to have a space between words when using the Rename or Relabel commands, then you must enclose the name with quotation marks like so:

Relabel Df1: "My Games"

The maximum amount of characters you can use for disk names is 30. This is because that longer names can cause problems with Workbench!

Understanding the copy command

● The Copy command is one of the most important and flexible commands at your disposal when working in the Cli. With it, you can copy a single file or a complete disk. You can use it to make your keyboard and printer emulate an electric typewriter or to print out complete files from any of your disks and more.

To start with, lets look at the 1.2 version copy argument template:

copy FROM, TO/A, ALL/S, QUIET

The FROM argument determines where you are going to copy from, while the TO obviously refers to the destination. There is no need however, to actually include these words when issuing the command. For example:

copy Df0:My-File ram:

would copy My-File to the Ram disk. You could also copy the file to a directory in the destination drive, as long as the directory already exists. The next example copies My-File to a "c" dir in the ram disk.

copy df0:My-File ram:c

To use the copy command to copy a whole disk, or to copy a complete directory over to another destination, you can use the ALL switch.

Copy Df0: Df1: all

would copy an entire disk from drive Df0: to a pre-formatted disk in df1. Note that this is also a good remedy to fix up disk access speed problems as unlike with Diskcopy, all related files are put closer together and re-organized on the destination disk.

Normally when using the copy command, the Amiga reports on screen the progress of the copying process. You can suppress this information from showing on the screen by using the QUIET switch at the end of the command.

A file is easily dumped to the printer with the copy command by simply telling the Amiga to Copy the file to the printer, like so:

Copy Df0:My-File Prt: Copy Df0:s/My-File to Prt:

if the file My-File happened to be in the s directory. You should have a rough idea of how to use this command by now, so experiment with it yourself to get the feel of using it.

A couple of tricks with copy

● To turn your Amiga into an instant typewriter, simply enter in the Cli "copy * to prt:". The asterisk causes anything you type on the screen to be dumped to the printer as soon as you hit the return key.

This has an advantage over a normal typewriter as you have the opportunity

to find and correct any mistakes on screen before actually printing the line. You can even delete the whole line you typed simply by pressing and together.

To end your typewriter session and return to a normal Cli, all you need do is press and together!

It is also possible to turn the Cli into a makeshift text editor. This can be handy if you want to create a small quick text file and don't want to go to the bother of loading a text editor.

"Copy * to Df1:Text-File" results in the Amiga responding much the same way as in the example above. The exception is that instead of sending what you typed on screen to the printer, the Amiga sends what you type to a file "Text-File" which it creates, on a disk in drive df1. This text file can later be edited just like any other text file in a text editor.

Once again, pressing and will end the session and return you to a normal Cli.

I have only touched on some of the capabilities of this powerful little command here and indeed, have not gone into the extra arguments and switches supplied in the improved 1.3 version.

Space does not permit a fully detailed description of all of the possibilities here, but as I've said before, use and experimentation with the commands is one of the best means of discovery.

Some last words

● That brings us to the end of Part 2 of this series. I hope you've found it useful and enjoyed reading it as much as I enjoyed the writing of it. In the next installment, we will look at some more CLI commands like Delete, Install, Path and a few others.

We will also touch on the subject of Formatting a disk and why it's

necessary, as well as look at how we can attempt to recover files from a disk that's been corrupted with the help of the DiskDoctor!

Till then...

□

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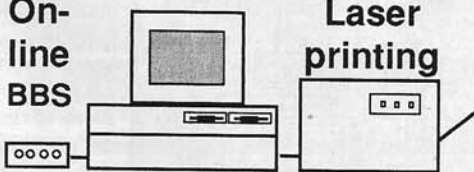
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PaperClip Publisher

by Tom Lee

IF YOU ARE interested in desktop publishing and own a C64, or use the 64 mode of a C128, then *PaperClip Publisher* by Gold Disk Inc., which sells for around \$54, is an excellent program for you.

I am editor of a monthly newsletter for the Commodore Computer Club WA Inc and have used *PaperClip Publisher* for approximately twelve months now so feel I can write with some authority on its pros and cons.

One of the comments from users would be slow speed. But what can one expect from the memory available in a C64? *PaperClip Publisher* comes with one disk and an excellent book of instructions. Like all programs it will take some time to acquaint yourselves with the many features it has to offer, so don't think you are going to be up and running immediately.

There are several utilities on the *PaperClip Publisher* disk, namely Printer select, File converter, Font converter, Create work disk and Copy document. I will deal mainly with the first three.

It is important that you first make a back-up disk and put the original in a safe place. You can use "Create Work Disk" utility or make a back-up from your own utility program if you wish. You can now load "Printer Select" on your back-up disk and select the printer driver from the menu that suits your printer.

There are 12 drivers to choose from, I have an NX10C and I use the MPS 1000 driver. Note: There is no driver for the MPS 803 and it appears that none of the listed drivers will drive the MPS 803. Once you have selected the driver for your printer, the rest of the printer drivers can be dumped from your

back-up disk to give more available blocks for your work needs.

There are five fonts with four point sizes from 8 to 24 included with *PaperClip Publisher*, but the good news is, all fonts from GEOS can be imported using the "Font Converter" utility on your program or back-up disk.

With *PaperClip Publisher* there are 30 graphics, but once again all graphics from *Printshop*, *Printmaster*, *Outrageous Pages*, *Doodle* and *Newsroom* can be imported with the use of the "File Converter".

Although *PaperClip Publisher* has its own built-in word processor with all the features of Bold, Italic, Underline, Shadowed, Outline, Backslant, Light, Upside down, Mirrored, Subscript, Superscript and Reversed, you can import text files from other word processors using the "File Converter". There are four WP's listed in addition to *PaperClip Publisher*'s own: *Paperclip I*, *II*, *Bank Street Writer*, *Word Writer I/III*, *Paperback Writer*.

I also use *Superscript* by selecting "Paper Clip I/II/III" from the "File Converter" to convert my files to the *PaperClip Publisher* format.

Once you have more or less tailored made your back-up, make another back-

up of your back-up which from now on you use as your work disk. Confused? Don't be.

You have the original tucked away nice and safe, you have back-up number one as your boot disk and the second back-up as your work disk which you insert when requested. Once you have decided which fonts you like, the remaining fonts can be dumped from your second back-up disk, again so you have more blocks available to work with. I personally selected the Times and Courier fonts from *PaperClip Publisher* and import others from GEOS as well.

There are many working tools in view once you have loaded the program and followed the instructions. There are also many sub menus that can be displayed across the top of the page, all of which enable you to select the right font, the right size fonts, whether left justification or right or centre, choice of border round your text, and a choice of fill patterns for your borders or background.

The tools down the right side help you to 'pour in' your text or graphics, boxes can also be linked, even on to other pages if your text is too long for the one page. You can select areas to be enlarged for more detailed or accurate working, centre graphics within a frame, enlarging or decreasing text or graphics, even scrap text or graphics or complete boxes of text or graphics if so desired.

In the initial set-up you can preselect the number of columns you require on your page and the page size to suit either legal, std or even A4 paper. Once you have completed a page or even por-

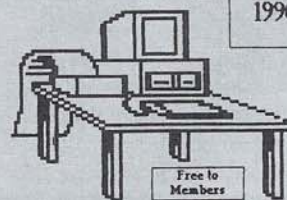
(continued on p.61)

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NEWSLETTER

VOLUME FOUR - ISSUE SIX

JUN
1990



Full marks to Gladys Evans who spotted my deliberate mistake - cough - cough um - um in my puzzle in the April issue. The missing letter in TURTLE should have been (U) not (T). My apologies to Gladys and all puzzlers. As no one else reported this I can assume that I have only one member who loves my puzzles which is a puzzle to me.

Our thanks to Trevor Seaman of Computer Corner at Maddington Plaza for his gift of a Joystick for our April raffle. (see advert). I personally recommend you see Trevor before making your next purchase. Don't forget to take your membership card with you.

Next month's issue will contain your membership renewal form for 1990-1991 and we look forward to your continued membership. Membership fees still remain the same and have not changed in many

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tions of it, you can save your work to date by selecting the menu from the top white bar by placing the cursor on the word Doc: and pressing the left mouse button or joystick button to reveal which save function you require.

Text mode can be entered from one of the sub menus across the top and you can then either type away in that mode, or place in your disk of converted files from your own word processor. Pressing CTRL L, all the files on your disk will be displayed, you can then select the one you need.

To quit Text Editor simply press the mouse or joystick button and answer "Y" to the prompt, you then are returned to the main page so that text can now be poured into the box or boxes you have previously defined. You can have up to 50 pages in a document and define up to

60 boxes in total.

Graphics mode can also be entered by selecting 'GRAPHICS' from the sub menu across the top bar. Graphics from *PaperClip Publisher* or your own disk of converted graphics can now be loaded. Once you exit from graphics, they can be poured into previously defined boxes which can be adjusted later to the size of graphic. The size of graphics can also be enlarged or diminished according to your requirements.

To avoid waiting each time you reload the saved page or portion, there is a lightning symbol in the top right corner which can be pressed to show the windows only without text or graphics. Another facility enables you to select the current box only to be displayed or not at all rather than wait while all the boxes fill. You can also print to hardcopy with-

out showing all the text or graphics on the screen.

There is a quick text facility which I find extremely useful without moving into the 'Text Mode.' By selecting this mode up to 250 characters can be typed without leaving the main page, then loaded into a previously defined box. I find this very useful for headings, all the features for bold, italic etc, can be used as in the 'Quick Text Mode.'

One final word, all boxes can be adjusted in size and moved around the page or even on to other pages to improve layout. It is impossible to cover all the many fine features in detail in this article as without doubt such an article could fill an entire magazine. □

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The Mega Entertainment Section

Edited by Phil Campbell

That's Entertainment

A round-up of this month's entertainment news and views.

Computer theft

● Schools beware! News in from Victoria indicates that a well organised group of scumbags are stealing computer equipment from schools. Mt Pleasant Primary School has just lost three Commodore 64s and an brand new Amiga. Mt Clear Technical High has also lost a lot of gear. Apparently other schools in the Ballarat region have lost gear too.

This stinks. It's important that kids have access to computers in school, and if the thieves stopped to think about the amount of fund raising involved in setting up school systems they might at least feel a little guilty.

So two warnings. First of all to schools. Make sure your computer equipment is SECURE! Second, to anyone buying second-hand equipment "off the back of a truck." Be careful who you buy from, because your gain might be the loss of hundreds of school kids.

Questor signs up Medalist International

● Your favourite Marvel Comic characters will soon spring into life with the release of the new Medalist International "Paragon Software" range by Questor.

Title such as *The Beast*, *Thunderbird*, *Blob*, *Quicksilver* and *Toad* all feature Marvel super-heroes. Coming soon are the famous *X-men* for Commodore 64 users,

and *Megatraveller*, which will first be released in IBM format. Watch out for reviews soon.

Amiga train game wanted

● There's a bunch of train drivers out there desperate to get an Amiga version of *North East Corridor*, a train shunting game once popular on the Commodore 64. Noel Cross would love to hear from you if you can help - write to him at 16 Third St, Booragul, 2284 NSW.

Amazing Amos demo

● I've just been playing around with the demo version of *Amos*, the amazing game authoring system from Pactronics. Wow! This thing sure is hot. *Amos* is actually a whole new programming language that lets you take control of the power of your Amiga - you can produce parallax scrolling shoot-em-ups with full stereo sound track and digitised sound effects, you can produce educational programs, you can produce anything you like. All you need is patience and a bit of brain power.

In a word, *Amos* is stunning. Watch out for a full review soon - and maybe even a monthly *Amos* column. If you'd like your own personal copy of the *Amos* demo, send a blank disk with a stamped self addressed envelope to Pactronics, PO

Box 101 Rydalmere NSW 2116.

New Commodore 64 games from Dataflow

● Right about now, Dataflow should be releasing the long awaited *Where In Time Is Carmen Sandiego* for the Commodore 64. This is the latest in the ongoing Carmen saga, and a follow up to *Where In The World*. Should be a smash hit - every school will buy one, and that's quite a market.

Wings Of Fury is another nice title - I've played the IBM version, and I liked it. Take off from your Aircraft carrier and take on enemy gun emplacements, ships and planes - a real challenge, and fun to play. Prices have not yet been announced.

Iceman Grafix for Commodore 64

● What's a collection of C-64 clip art and graphics doing in the entertainment section? I'll tell you in a minute. In the meantime, if you're looking for some graphics for your paint program, or some clip-art for GEOS, try Iceman Grafix, c/o Toogoolawah P.O., Toogoolawah, Qld. You can get a sample disk with over 60 superb pics for only \$5.00. So what's this doing in the entertainment pages? Let me quote from the press release ... "If you think this doesn't relate to entertainment, just let me know and I'll send you a few demos and graphics, and we'll see if they aren't entertaining!" Hmmm ... I'll leave that up to you. □

Mindscape competition of the month-Anyone for tennis?

● Commodore 64 and Amiga users will simply LOVE this month's Mindscape giveaway. There are three copies of *International 3-D Tennis* just waiting to be won - a game that overseas reviewers are simply raving about. "This is fabulous ... no one could fail to be impressed," says C & VG magazine. "It's smashing," says ZZAP.

What do you have to do? Simple. Just make as many words as you can from the letters "TENNIS", write them on the back of an envelope with your name, address and computer type, and mail it to Phil Campbell, PO BOX 23, Maclean NSW 2463 before August 20th 1990. □

Mindscape Dragon's Breath competition winners

● Judging the Mindscape *Dragon's Breath* competition was not easy. The task was simple - write a one paragraph story with the title "What I'd Do if I had Dragon's Breath." There was only one rule. It had to be funny. What can I say? There were stories about fluffy kittens reduced to piles of ashes, there were stories about barbecued pet dachshunds. There were poems about singed eyebrows, and poems about>Listerine. Best of all was the poem by J Lee of Sydenham, NSW, who finished his poem with these immortal lines:-

"But alas, even though my breath is hot,

As hot as hellish brew,
It still wouldn't be as hot
As the Commodore and Amiga Review."

Terrible poetry, but a nice idea. Congratulations - a copy of *Dragon's Breath* is on the way.

Second prize - also a copy of *Dragon's Breath* - goes to Stuart Babbage of Giralang ACT for his very concise entry. As you know, brevity is the essence of good humour.

The third copy goes to Daniel Ross, of Ulverstone Tasmania, who suggests using his dragon's breath to straighten out our politicians in Canberra. Not a bad idea, Daniel - keep your eye on the mailbox, 'cause your copy is on its way. □

Letters to the editor

Address all letters to the Entertainment Section to Phil Campbell, PO Box 23 Maclean NSW 2463.

Dear Phil

● I would like to congratulate you on a great magazine. It's great to see an Amiga magazine made in Australia.

**Simon Ferraro
Reservoir, VIC**

Ed: Thanks for the compliment, Simon. We certainly are an Aussie mag, and we're glad you like us. Because we're Australian, you can be guaranteed that the games we review are in the stores right now - not like some overseas titles I could mention, who often review pre-release titles without even playing the finished game! Keep reading, and we'll keep getting better.

Dear Phil

● My family and I just love computer games, but we always draw the line at anything involving the occult. The illustrations alone should be a warning - talk about ugly! Computers are only machines, but I have learned that the spirit world IS real, so I keep right away from the "dark side." This is purely common sense - "can a man scoop fire into his lap without his clothes being burned?" (Proverbs). It's all about sowing and reaping or the "garbage in - garbage out" philosophy. Besides, the greatest "dragon slayer" is Jesus, so we'll give Elvira a miss and stick with him!

**Shane Sodeman
Moranbah, Qld**

Ed: Thanks for the sermon, Shane. Seriously, though, I agree entirely - occult games are certainly dangerous stuff, and we'll be giving games like Elvira the flick too.

Dear Phil

● We decided to write to you to discuss the ridiculous high scores in some of those pommy mags we happen to pick up to reach for your excellent mag. For example, we were looking at a C+VG mag when we saw that some guy (who seems to be a terrific liar) believes he scored 1,000,300 on the Commodore version of Operation Wolf. By the way, is there anyone out there with a cheat for infinite lives and time on Batman The Movie (C64 disk version)?

**Jamie Gadd and Trevor Cornish
Watsonia, Vic**

Ed: Some people will do anything to get their names in print ... which reminds me of a guy who sent in some high scores a few months back. Believe it or not, I found IDENTICAL high scores listed in another of those pommy mags that take up all the space at the newspaper shop... our local reader just decided to copy out the scores and send them in! What can I say? Our Hall of Fame works on an honour system, so please be honest! If you really want to get your name in print, just write us a letter.

Dear Phil

● I'm writing this letter for a number of reasons. I have one answer, three requests and a question. The answer is for Vanessa Van Der Heyden. To get past the big guy on level 100 in Bubble Bobble, get one of the bottles of lightning power, go to a wall so as soon as you shoot one it will pop, and shoot your heart out. If you get enough lightning into him, he'll become bubbled, then you just pop him.

Now my first request is that you put my Paperboy high score in the hall of fame. My second request is that you get CinemaWare to adapt It Came from the

Desert for the C64. My last request is that you put in more cheats where you have to type something on the title screen, because I haven't got a reset button on my machine.

Now the question. How the heck do people discover the aforementioned cheats?

**Matt Treyvaud
Craigieburn, Vic**

Ed: Thanks for the answer. I hope Vanessa is reading. Your high score is entered as requested - well done. You've really given Chris Byrne's old score a thrashing! As for Cinemaware, get on with it, guys. There are plenty of C64 users ready and waiting to get hold of ICFTD. Finally, I'll keep your request for more code-word cheats in mind. We don't get so many of them, mainly because the POKES are easier to find! I'm not really sure how people find the code-cheats. A number of overseas mags get them direct from the programmers, and maybe we just get them second hand. Is there anyone out there who can tell us?

Dear Phil

● Please include my Amiga high score for Double Dragon in your high score table. Could you also recommend any good racing simulations, as I find your reviews helpful in choosing software. Keep up the good work on the excellent mag!

**James Knight
Cherrybrook, NSW**

Ed: Congratulations on your high score - it's in the Hall of Fame as requested. There are a couple of good racing sims around at the moment. I particularly like CONTINENTAL CIRCUS - it's fast and addictive with great graphics. CHASE HQ is pretty good too, as is NIGEL MANSELL'S GRAND PRIX. If it's motor bike racing you're after, go for RVF HONDA, then SUPER HANG ON - they're both top fun. □

C64 hints and tips

Bubble Bobble

● Gabriel McGrath of Vermont, Vic, tried to make it onto the high score table for this one with a measly 666,790. No way! However, in a very gracious gesture, Gabriel has provided the following hints and tips so that you too can be a brilliant player and not quite make it into the Hall of Fame.

First, Gabriel says to collect the metal cylinder to get the large diamond/watermelon. Collect the bottle to enter the bonus round. Always leave one letter

from the word EXTEND so that you can collect it during a difficult screen. Always move to a safe, strategic position BEFORE the enemies start to move. When you finish a level, start blowing bubble's at the nearest wall; your score will increase while you wait.

Gabriel says that all these tips are useful for the arcade version as well. There's also a cheat mode on the arcade game. Try this before you put your money in the slot:- Wait for the title screen to appear, then push (player 1) LEFT, JUMP, LEFT, PLAYER 1 START, LEFT, FIRE,

LEFT, and finally PLAYER 1 START again. If the cheat mode has worked, you'll see a "power up" message at the bottom left of the screen - start a game for faster player and bubbles. Thanks Gabriel - and better luck next time with the Hall of Fame.

Batman

● Matthew Mantle, of 5 Saturn Crescent, Gladstone Qld, 4680, has sent in a full map with detailed instructions for the Penguin section of Batman. Unfortunately, the map is drawn in pencil and is not quite up to publication standard. Write to Matthew at the address above

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with a stamped, self addressed envelope and he may be able to help you.

In the meantime, let me try and describe a little. Start in the Batcave. Pick up the Bat-o-rang. Go down one screen, then left to room 2. Pick up the Grenade. Go right two rooms, pick up the spanner. Use it, then drop it. Go right two rooms, pick up the key, pick up the badge. Go left one room, then up, then left. Pick up the disk. Use the disk. Use the Bat-o-rang. Now go out of the batcave, and it's up to you. The only other hints I'll give you are that you'll need the grenade to destroy the wall, and you'll need the virus disk for the computer at the end of the level. Thanks to Matthew for all his hard work.

Turbo Outrun

● The mysterious Hitcher 90 of NCF sent the following useful Pokes. For infinite time in level 1, POKE 16034, 173. For level 2 the address to poke is 16005, level 3, address 16034, level 4 16060 - all with the value 173. Good ol' Hitcher didn't give us any SYS addresses for this one though, so you might need to use a cartridge.

Space Harrier

● Also from Gadget and Rev (the two characters above) comes the news that POKE 6010,173:SYS 2128 will give your Space Harrier unlimited lives to play with. Thanks guys.

Blasteroids

● For infinite lives, POKE 11571, 173, then SYS 9982. Thanks to Hitcher 90 for this one too.

Wicked

● Finally from Hitcher 90, for infinite lives POKE 4736, 173:POKE 7478, 173:SYS 2560

Robocop

● Jamie Gadd and Trevor Cornish of Watsonia say that a simple POKE 44416,0:SYS 32768 will give your Robo unlimited lives. Very useful. □

Amiga Hints and tips

● The ever complaining Kamikaze Andy has pointed out that a couple of hints from the April edition of the mag had been printed before. Our apologies. It will never happen again. (Unless we make another mistake, which of course is highly unlikely!) Along with his complaint, Andy sent us a few brand new tips. Here they are ...

Battle Squadron

● Type CASTOR after you've shot one or two aliens. Now you can use the F6-F10 keys to change weapons, and the F1 to F5 keys to boost their power.

Silkworm

● Hold down the HELP key and press the joystick button - this should give you infinite lives. However, if you don't, go to the option screen (that's the

one where you choose either joystick or keyboard mode) and type in "scrap 28" - now you'll definitely get infinite lives.

Ninja Warriors

● Put on the CAPS LOCK key and type CHEDDAR for lots of credits.

Never Mind

● Matthew Mantle has provided the following passwords for the first 26 levels of this hot new game. Try these:

0.MMMRHH	1.AMMRHA
2.HMMRHH	3.VMMRHH
4.PMMRHH	5.GMMRHH
6.IMMRHH	7.RMMRHH
8.MAMRHH	9.AAMRHH
10.HAMRHH	11.VAMRHH
12.HMMWHH	13.GAMRHH
14.IAMRHH	15.RAMRHH
16.MHMWHH	17.AHMWHA

It Came From The Desert

● Natalie Paine produced the following hints through bitter experience.

● First, she advises that you always make a daily call to the weather station, because going out on a 70 to 80 degree day can be very dangerous... BUT if you want to record the ants' noises, a trip to the airport on a 70 to 80 degree day after day 6 will help.

● The best and simplest way to get rid of Ice and the Hellcats is to drive at them at full speed right in the middle of the road. Natalie guarantees this will run them off the road.

● Finally, stay home on day 3 at around 8.00 or 9.00am and you will be visited by someone with some very useful evidence. □

Hall of Fame

Amiga

Arkanoid	- 976,548 Kamikaze Andy
Blockout	- 36,455 David Marsh
Bombjack	- 200,680 David Thompson
Bubble Bobble	- 1,200,460 Vanessa Van Der Heyden
Buggy Boy	- 103,350 David Thompson
Continental Circus	- 290,000 Phil Campbell
Crazy Cars	- 76,113,500 Greg Billing
Crystal Hammer	- 43,847 David Thompson
Denaris	- 53,900 Peter Evans
Dragon Ninja	- 105,030 R Zagami
Double Dragon	- 124,630 James Knight
Gee Bee Air Rally	- 307,466 Kamikaze Andy
Hybris	- 1,618,452 Matthew Mantle
Impossible Mission	- 66,380 Diane Unwin
Indiana Jones L.C.	- Completed Phillip Nicol
ISS	- 1,420,450 A G Smyth
Karate Kid II	- 52,000 Robert Dunn
Leatherneck	- 83,300 Owen Webster
Major Motion	- 50,658 Owen Webster
Menace	- 996,481 Kamikaze Andy
Mindwalker	- 306,214 P Schumacher
Mousetrap	- 64,817 Matthew Mantle

Operation Wolf	- 344,800 John Boyle
Outrun	- 8,710,989 Daniel Harrison
Offshore Warrior	- 626,345 Jacob Booth
Pacmania	- 879,480 David Thompson
Pioneer Plague	- 35,412 Keir Sooby
POW	- 612,865 David Thompson
Rampage	- 111,600 Kamikaze Andy
Sidewinder	- 385,800 Ian Malcolm
Silkworm (heli)	- 913,700 A J Dunstall
Silkworm (jeep)	- 474,800 Tristan Mason
Skweek	- 314,820 David Thompson
Speedball	- 11,945 Simon Ferraro
Starwars	- 2,296,786 Ian Malcolm
Super Hang-On	- 7,743,039 Jason Burstow
Sword Of Sodan	- 364,750 Kamikaze Andy
Test Drive	- 103,981 Daniel Harrison
Test Drive II	- 292,086 David Marsh
Tetrix	- Level 100 Luke Tattersall
Typhoon	- 54,255 Owen Webster
Whirligig	- 7,428 Jonathan Scowen
Xenon II	- 378,909 Kamikaze Andy

Commodore 64

Batman the Movie	- 330,920 Simon Watford
Bangkok Knights	- 36,800 Nick Van Heeswyk
Bomb Jack	- 344,560 J Jacobs
Bubble Bobble	- 1,009,857 Kishore Ludbey

Buggy Boy	- 118,750 Paul Millward
Double Dragon	- 17,340 Paul Millward
Double Dragon II	- 255,190 Nick Van Heeswyk
Fast Break	- 136 To 9 Chris Byrne
Giana Sisters	- 69816 Nick Van Heeswyk
Gryzor	- 203,900 Paul Millward
Handball Maradona	- Level M Nick Van Heeswyk
Hawkeye	- 59,000 Nick Van Heeswyk
Ikari Warriors	- 195,000 Troy Morrison
Int. Karate	- 139,300 Paul Millward
Last Ninja II	- Completed 34.2 Sec Nick Van Heeswyk
Operation Wolf	- 168,789 Kishore Ludbey
Outrun	- 6,438,787 Kishore Ludbey
Paperboy	- 15,050 Matt Treyvaud
Que-Dex	- 639 Chris Byrne
R-Type	- 684,200 Nick Van Heeswyk
Robocop	- 82,250 Tim Lockwood
Rolling Thunder	- 222,740 Icmann
Salamander	- 235,300 Paul Millward
Street Fighter	- 127,050 Chris Byrne (clocked)
Super Cycle	- 178,950 Jason "maverick" Denham
Test Drive	- 24,790 Jason "maverick" Denham
Thunderblade	- 63,000 Troy Morrison
Thundercats	- 57,500 Chris Byrne
Target Renegade	- 330,450 Chris Byrne (clocked)
The Untouchables	- 70,230 Simon Watford
Wonder Boy	- 237,650 Kishore Ludbey

Greg Normans ULTIMATE GOLF

It's here at last! The long awaited Ultimate Golf. And it was worth waiting for, says **Phil Campbell** ...

"THAT'S WHERE GREG Norman's drive landed last time he played this hole," said my friend Helpful Ken as we searched for my ball at Concord Golf Club. My eyes followed the line of his pointing finger up the fairway. My scorecard showed two strokes already, and I had been feeling quite pleased with my form.

Maybe Greg Norman hasn't won a major tournament for quite a while. And maybe he does specialise in getting beaten at the last moment by fluke shots from the fairway. But two facts remain. He's still the highest earning golfer in the world. And he sure can hit that ball!

Keen players of computer golf - these days almost as popular as the real thing - will be pleased to know that Greg Norman's famous technique has now been captured on disk. *Greg Norman's Ultimate Golf* is perhaps the most detailed golfing simulation ever produced.

In real life the flight of a golf ball is af-

fectured by a multitude of parameters, ranging from the physical characteristics of the ball itself through to the atmospheric conditions at the instant you play a stroke.

The programmers of *Ultimate Golf* have poured eight man-years of development time into simulating as many of these factors as possible.

Accurate 3-D models of each hole were created, including information about altitude and vegetation. They even claim to have simulated global weather conditions over a full 12 month period. In other words, these guys sure have done their homework.

Ultimate Golf can be played at a variety of skill levels. At the lowest level, it is something of an "arcade game" - simply stroll around and wallop the ball as hard as you can, just like I do in real life. Add factors like wind speed, weather conditions and ball spin and the game be-

comes a full-on simulation of a real life golf course.

There's also a choice of tournament types - play a practice round, or a Four-ball, Foursome or Greensome match. The game has a built in database of computerised opponents, including big name champs like Ian Stewart and even Greg Norman himself. A match against these guys can be quite demoralising, so you may prefer to play against some real life friends.

Graphics on the Amiga version of the game are very nice, with a sweeping three dimensional view of the course. A matrix of lines criss-crossing the ground make undulations obvious, and your strokes must take the terrain into consideration. There's plenty of detail, ranging from trees and shrubs to accurately placed club house buildings.

Animation is good too - and so it should be. The sequence is actually digitised from a genuine Greg Norman swing! If you want to improve your game, watch carefully.

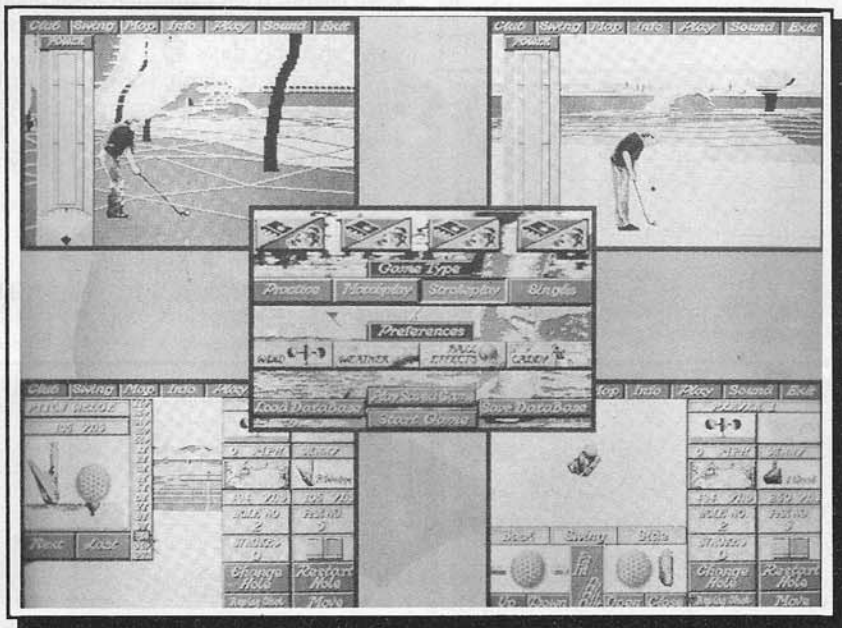
There are 17 clubs to choose from, though only 14 will fit in your golf bag. Mouse, joystick and keyboard controls are available, and all are quite effective. Holding down the button or key causes the power level to rise on a meter at the side of the screen. Release the button at the end of your backswing, then align your shot by clicking again when the horizontal deflection meter is centred. Time it wrongly and your shot will veer to the left or right - though seldom as far as I manage to slice it in real life.

Greg Norman's Ultimate Golf is a very nice game. Whether or not it's actually the "ultimate" I will leave for you to decide - it's certainly the most detailed simulation to date. Besides, who can argue with the Greg Norman seal of approval?

Review copy from **Mindscape** (02) 899 2277.

RRP Amiga \$59.95, C64 \$49.95. □

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MIDWINTER

Feel like saving a frozen island? Feel like the challenge of a huge and detailed game? Feel rich? Then come with **Phil Campbell** and explore the island they call ... Midwinter.

IT'S COLD, COLD, cold. Icicles drip from long-dead trees, every breath becomes a frosty cloud of vapour, and a crust of snow covers everything in sight. The year is 2091, and everything is cold. For the last 50 years, the earth has been trapped in a new ice age - permanent winter.

When the meteorite smashed into southern China shock waves were felt as far afield as London and Sydney. In Beijing and Bombay, buildings were flattened. Millions of tons of dirt and dust were sprayed into the atmosphere, blanketing half the globe. That's why everything is so darn cold. Planet Earth will never be the same again.

The disturbance in the earth's crust led to a dramatic increase in volcanic activity. A sudden upthrust transformed the nine Islands of the Azores into mountain peaks atop a whole new island. Twenty years after the impact, this is where a hardy group of settlers have made their home. They call it Midwinter Island.

By now, the colony has grown. There are more than 500 people scattered around the villages on the island - each village clusters around a Heat Mine, a turbine vented shaft sunk deep beneath the crust of the earth. The settlers are all refugees. In the densely populated centres around the equator, anarchy reigns supreme. Midwinter Island is a haven of sanity and security. Or it was, until the arrival of General Masters.

The self-styled General has already taken over the south eastern corner of the island, and he won't be satisfied until he controls it all. With a heavily armed gang of thugs, Masters has launched an all out attack on the rest of the island. All that stands in his way is the 19 member force of Peace Officers, led by Captain John Stark.

We're playing *Midwinter*, a hugely im-

pressive game that recreates the whole scenario on a single disk. The island is rendered in massive detail - a complete computerised environment. You are Captain Stark. You look at the world through his eyes, you guide his every action, you make his every decision. Your skill determines how long he will survive.

At first, all you can see is snow. The icy landscape is built up from geometric shapes, recalculated and redisplayed at lightning speed every time you move - technically, it's called a "filled vector" display. There's a genuine feeling of depth - even the intensity of the shadows is calculated precisely. Call up the fractal generated main map display for another surprise - it simply bristles with realism, and shows every ridge and gully of the landscape in precise detail.

There are four methods of transport, but at first you are limited to skis. Mouse control is best - simply move your wrist to follow the contours of the snow banks. Smart players will first check the map

and work out a useful destination.

I decided to head for the cable car station. The long trek through the snow was interrupted only by an attack by an enemy spotter plane. Switching to "Sniper" mode I lined him up in my sights and peppered him with high powered bullets. One to me.

The cable car ride is fun, and allows you to cover large slabs of the island in comfort. The windows of the car give a panoramic view of the landscape rolling by below. At the top of the mountain, you'll find a hang-glider. The manual warns that mastering it is quite an art - absolutely true, and I've got the bruises to prove it.

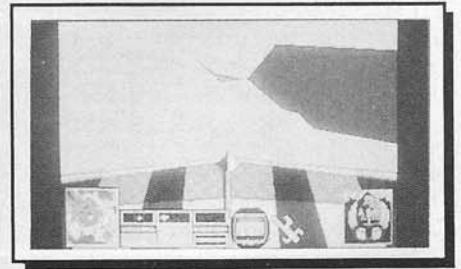
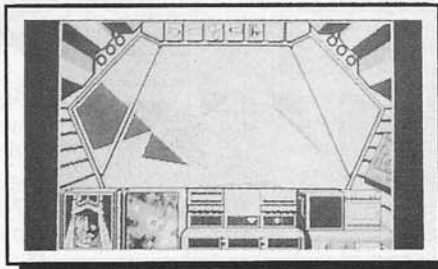
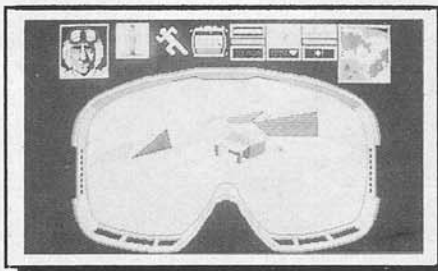
The best mode of transport is the Snow Buggy - fast, comfortable and easy to steer. They are available at a number of depots round the island, which of course must be reached by ski or glider first.

This game is vast. There's a whole team of Peace Officers to control, there are volunteers to enlist and there's strategy to be devised. I'm still at the level of struggling for personal survival, even after a few hours practice. *Midwinter* may not be a world in itself, but it sure is a full scale island. It's a game that keen players will immerse themselves in for hours on end - probably days.

Midwinter is a large scale game with a price tag to match. IBM compatible, Amiga and Atari ST versions are all \$89.95 - big money, but plenty of bangs for your buck.

Rating overall: **85**

Distributed by **Questor** (02) 662-7944.
RRP Amiga \$89.95. □



SHERMAN M4

Is this the best game yet? Phil Campbell thinks it is. Read all about it ... **Sherman M4.**

LET ME MAKE one thing quite clear. You are about to read a rave review. Make no mistake - here is a game I like very, very much. *Sherman M4* is a World War II tank simulation, and it is phenomenally good.

Tank simulations have been popular for years. First there was the coin-in-the-slot machine that let you peer through periscope sights and shoot it out with a platoon of enemy tanks. They were simple geometric affairs drawn as simple wire-frame graphics. A good game, and quite popular.

Since then there has been a steady trickle of home computer tank-sims. The graphics have gradually improved, though the game-play hasn't. Sometimes they're too complex. Sometimes they're too slow. *Sherman M4* is just right.

Programmed by French software house Loriciel, the game recreates three genuine World War II campaigns - the Normandy landing, Hitler's tank attack in the Ardennes and the El Alamein desert campaign of November 1942. You control a platoon of four Shermans, the most famous of the allied combat tanks. The enemy forces are authentically

armed with the almost indestructible Tiger, the Jagdpanzer 5, the Stug 3 and the Panzer 4 - a formidable array of firepower.

In a fascinating twist, the game is also targeted at the German market. The second half of the manual is printed in German, and subtitled "Die Panzer Simulation von Loriciel" - obviously, the gameplay has been tweaked to give European players rather a different perspective! We get to drive the Shermans, they get to shoot them.

Controlling your tank is absolutely intuitive - you can drive by the seat of your pants. There are a number of views available. If you choose the interior view, you will find yourself sitting at the controls. The interior of the tank is re-created in painstaking detail, with a nicely subdued khaki colour scheme. There are numerous low-tech dials and gauges, exactly as you'd expect to find in a vintage tank. A pair of leather gloved hands move the control yokes back and forth as you move your joystick, adding a nice touch of realism.

The small rectangular viewfinder is overlaid with a gun-sight, a moving cross

hair reflecting the angle of your 75mm canon. The field of view is limited, but once you've got an enemy tank in your sights you can be sure of an accurately placed shot.

If you feel like a bit of fresh air, simply open your hatch and prepare yourself for a panoramic view. The battle fields of Normandy spring to life - the ocean to one side, mountains to the other, a smattering of trees and a powdery sky. It's all yours to explore, providing you first disable the enemy bunkers and tanks. There are rivers, bridges, roads and buildings, all created in perfect perspective. To get a closer look at the enemy, a quick button press brings up your binoculars - clever binoculars, at that, because as you focus on another vehicle or installation, a message on the screen tells you what you're looking at.

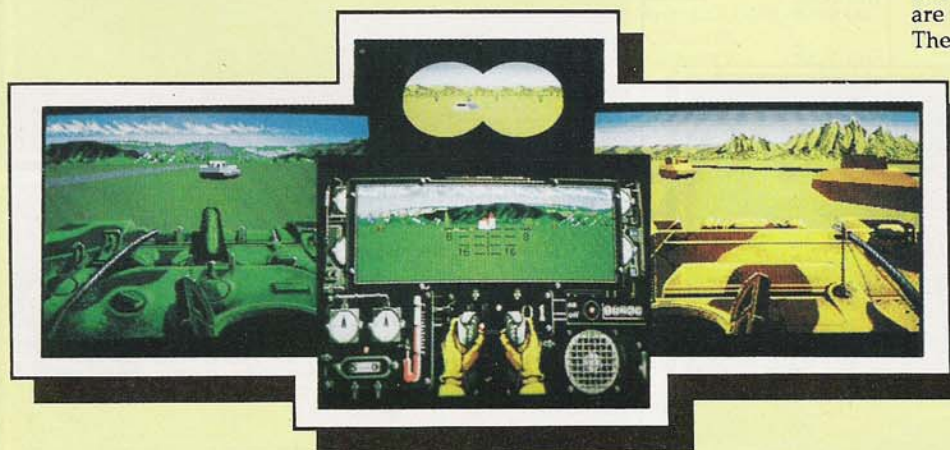
What makes *Sherman M4* so special? Above all, it's the graphics. The programmers have skilfully combined two techniques. Tanks, bunkers and buildings are created by a mathematical "filled vector" system, common in many 3-D style games. Usually, games like this are played out on a similar "filled-vector" background - geometric and dull, with very little detail. But not this time. The vector graphics are woven into a beautifully detailed "bit mapped" display, bringing the whole game to life. The effect is so realistic that it is almost spooky.

Animation is fast and smooth - the 52km/h top speed of your tank feels just like 52 km/h should feel. Sound effects are accurate, and the enemy is tough. There's enough challenge here to keep you coming back time after time.

Sherman M4 is technically brilliant. The graphics set a standard by which other games will be judged. The sound effects are realistic. The scenario is accurately researched. But none of that really matters. The fact is, playing *Sherman M4* is a heck of a lot of fun.

Distributed by **Pactronics** (02) 748 4700).

RRP Amiga and IBM \$49.95. □



Aquanaut



Feel like some undersea adventuring? Join **Juris Graney** for this guided tour.

FROM THE DEEPEST parts of the ocean comes a game where all the nations of the world unite to clean up the planet. The year is 1999 and the world is in dire need of a face lift. The planet is over-polluted and someone has to clean it up. There's another problem too. An alien race has invaded Earth and put the city of Atlantis underwater. The leader has enslaved the people to work for him. The nation's leaders have selected Lieutenant Commander Ric Flair - that's you - to clean up and destroy the alien race.

The first level is pretty straightforward. All you have to do is find an anchor in the middle of the ocean. The underwater graphics are superb and the smooth four way scrolling makes it highly addictive.

Along the way you are faced with

mutant sharks, huge jellyfish, swordfish that want to turn you into a seafood kebab, a toxic waste dumping ground and last but not least explosive mines. But don't worry - not everything is bad underwater. There are mermaids that kiss you and give an extra life.

The screen is well set out and a lot of thought has been put into it. Keep watching your air gauge or you will suffocate. When it's getting low go to an air cubicle. You have to be spot-on to get any air so position yourself carefully. There are a number of other gauges that help you along the way, so keep your eye on them all.

Section Two is good too. This level is also set underwater. The Rockadiles need to be shot in the eye while you avoid the Mucous Mites and the air grabbing Suffocating Balls - bump into them and they take your life supporting air. There are also Mutoid Maggots and Pumper Fish. Collect everything that you see or you will get stuck.

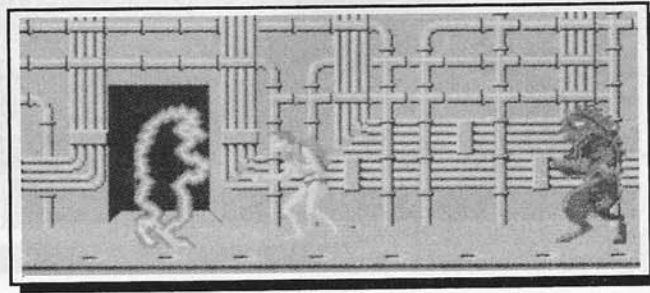
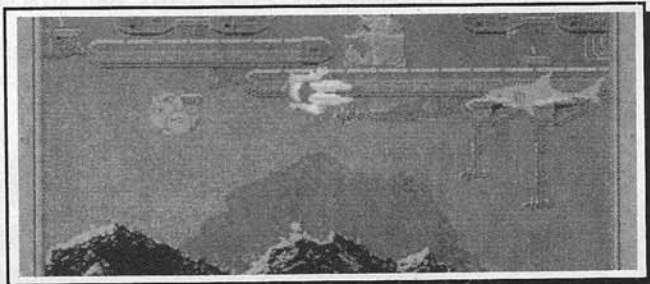
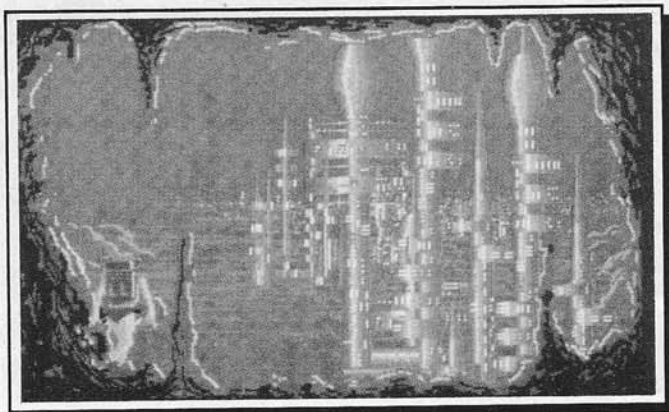
Again, the graphics are good. Everything moves quickly in the first two levels, but the third would have to be the best.

Section Three is set on land which is a bit of a change. It is set in the lost city of Atlantis. Like the second section you must collect everything you see. This time, though, you've got no laser gun. You have to fight with knives. Wander around killing mermen for a while and you'll eventually come to a door. Inside you'll find the computer room. It is pretty useless unless you have the decoder and the disk that has information on it. When you find all the equipment you need, go back to the computer room and insert the decoder and then the information disk. Notes will be displayed which will explain everything that you will need to know.

You might think *Aquanaut* is a recreation of *Navy Moves*. Well, you're wrong. It is a game that stands out from the bunch. It won't disappoint you - it's the best thing I've played for a long time. The graphics by Wilson Sharp are excellent. Just remember to collect everything that you see and don't be disgruntled by being killed. And make sure you remember the motto of the game - SNORKUS NON BLOCKUM.

Review copy from **Mindscape** (02) 899-2277.

RRP Amiga \$59.95.



At The Zoo

Colouring in is kid's stuff, but Tony Smith has lots of fun with this new educational package for the younger computer buffs ...

EDUCATIONAL PROGRAMS are rapidly appearing on the Amiga scene, no doubt due to many educational facilities seeing the light. *At The Zoo* is aimed at the younger computer user, right down to even pre-schoolers. Anyone who can manipulate a mouse can use this package easily; it would even be suitable for special educational needs such as developmentally or physically handicapped students, providing an ongoing record of their work.

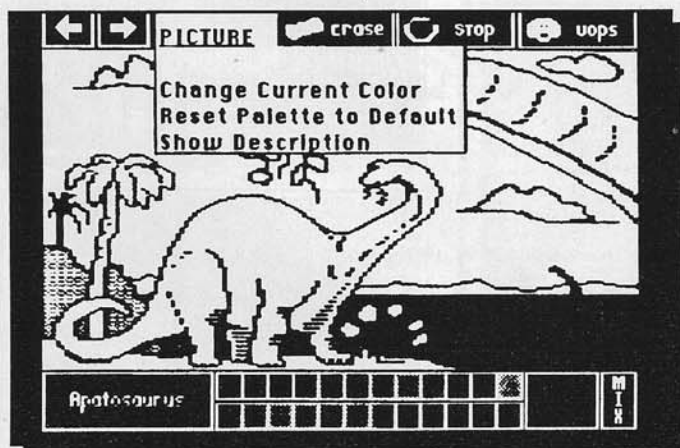
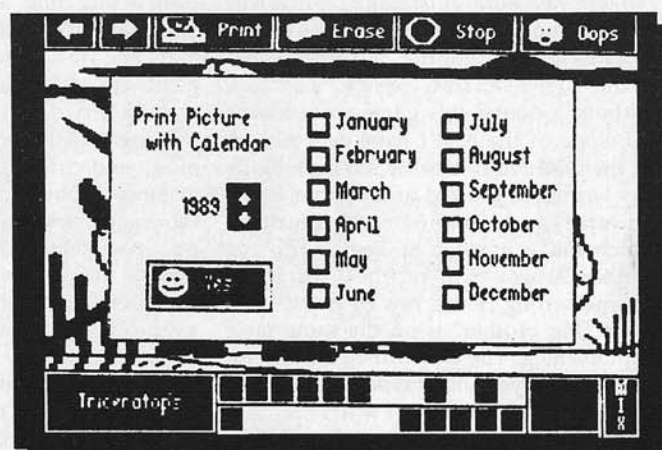
At The Zoo is a colouring book with a difference - mistakes can be erased or altered and as each picture is completed or changed, the information is saved to the disk. The user has an unprotected copy of the original disk in the drive and it is updated constantly so the entire series of pictures is saved for posterity. Pictures can be printed, customised, printed as part of a calendar or even printed with your own special messages. Thirty pictures are provided, from Aardvark to Zebra, each picture has a description which can be called up via menu or keypress and as a finishing touch, a digitised sound effect of each animal or scene is played as the picture loads.

Screen layout includes an adjustable palette with a mix feature, a pad which plays the sound effect for the scene, an oops key for mistakes and arrows to flip backwards or forwards through the pages. Two disks are provided. The second disk contains the sound effects and fun can be had with these on their own, the program asks if you want to hear the sound ef-

fects if it cannot find the effects disk. If you have more than two drives, the program finds the sound disk regardless of where it is placed - a feature that should be made standard on more commercial software. It's frustrating to play multi disk games which only operate on DF0!

Various patterns are available to give the impression of texture and more colours or shading. *At The Zoo* is fine quality software, well presented and good fun with an accurate drawing of all the zoo animals ready to be coloured any way you wish. When the kids get sick of it, the pictures can be erased and done again in different colour schemes. Just the thing to put in the computer when dad has left for the office and the rain is falling outside.

Review copy from **Pactronics** (02) 748 4700.
RRP Amiga \$49.95.



STAR TREK

The Rebel Universe

by Tony Smith

THERE HAVE BEEN many variations on the theme of *Star Trek* since the mid-60's when Spock was cool (but where did he get those ears?). From board games to computer games, *Star Trek* has been emulated, imitated and cloned through many differing forms. During my review of *Star Trek-the Rebel Universe* I journeyed to the dusty disk boxes of "those precious parts of history" my first computer games box.

In it I found my earliest *Star Trek* game, a basic program by that Guru of games writing, I. Grey of China Miner fame. (Where are you now, I. Grey?) An excellent C64 game in its day, *Star Trek* was enjoyed for its excellent gameplay. Another in the dusty collection was *Star Trek-the Kobiyashi Alternative..* This was just a bit too hard to be enjoyable.

Now comes the first *Star Trek* game of the 90's, *Star Trek the Rebel Universe*. Without a doubt, this game would have to be one of the best I have ever played on the C64! From the title screen with its tiny writing to the end of the game, *Rebel Universe* is crammed with features which make it more at home with big brother Amiga than on the C64. Don't get me wrong, I use my 64 a lot, even when "big brother" is on the same table with his meg. The C64 will be around for a long time yet and the software is still coming out to support it.

I am playing *Star Trek* at the moment

while the Amiga supplies the wordprocessor and shares the monitor. There are many Amiga games not up to the standard of this one. For a start it is memory resident, no long waits for sections to load. The artwork is stunning, the orbit screen in particular. All the characters are there, each in their own role, Spock remains on the screen at all times so his icon can be called upon.

The screen is divided into eight areas, a main screen and seven smaller screens which change according to what you're doing. This system offers a unique user interface which is fast and efficient, allowing the player to move quickly when under attack or in crisis.

Games within the game are also excellent, a targeting and shooting segment when Klingons attack, sometimes more than one at a time. An adventure type game upon landing, first choose your crew, beam down and then attempt to traverse the obstacles by a combination of wit and cunning. Navigation is within a finite globular system containing a thousand stars, most of which carry planets. Spock tells you if a planet is habitable - these may be visited. Other planets, though unlivable, can be orbited for energy, healing, shields and fuel.

Some planets have negative effects such as power drain or energy depletion, even radioactive "branding" making you visible to enemy craft's scanners. Fortunately,

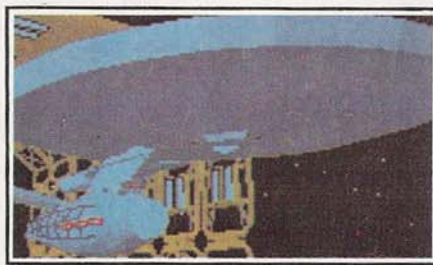
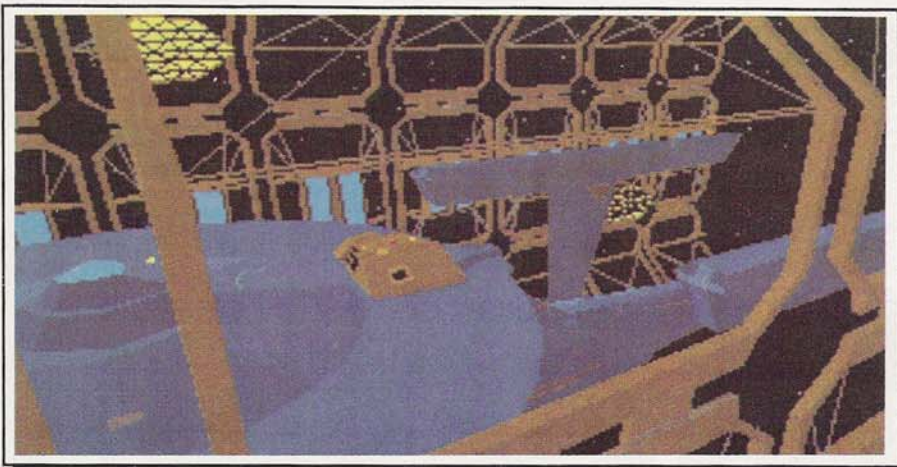
these effects can be neutralised by visiting another planet type. You are given five years to clean out the 100 light year diameter area of rebels. If you fail the area is to be enclosed in a "klein sphere", an impenetrable forcefield from which there is no escape.

Strategies are varied as in games like *Elite* and *Empire*. Many means of winning are available and this makes for great playability. The 40 page manual is essential reading, containing strategies and details of pitfalls, hints galore and invaluable assistance in the recognition of crew members.

Once the game has been played a few times it's easy to play but hard to win, giving it that try-again-ability so rare these days. Sound effects are sparse but sufficient, the usual shooting and blasting effects, good title music and blaring alarms. Joystick control is fast and accurate, after being so used to the mouse, the interface was the greatest. A must game for space freaks, *Star Trek-the Rebel Universe* is sure to be a big hit!

Review copy from **Questor** (02) 662 7944.

RRP C64, Disk \$29.95, Cass \$24.95. □



STEIGAR

Greg Munro enjoys a good but mindless blast with Steigar ...

STEIGAR IS A highly qualified pilot of a heavily armed light attack helicopter. At the start of each level, *Steigar's* only firepower is a forward canon and a missile launcher, aimed at ground level targets. Firepower can be increased, and extra weapons gained, by collecting equipment pods. These pods are dropped from some enemy aircraft and enemy attack waves when they are destroyed. Accomplishing some levels will be virtually impossible without increased firepower and weaponry."

And that's about all the rather skimpy instructions for this game tell you. But it doesn't matter one bit, because *Steigar* is just about as "Load and Play" as they come. It's your everyday garden variety war shoot 'em up. I'm sure I remember seeing something very similar, if not identical to it, in the video parlours about a year ago, but last time I looked I couldn't see anything vaguely resembling it. So I'm not sure if it's an arcade port or not. Anyway, *Steigar* is a horizontally scrolling two dimensional game, with good graphics and fairly basic noises, including very loud explosions.

At the beginning of each level, orders are given. The instructions for level one are to destroy the radar on the enemy Class 2 destroyer.

Play begins with your helicopter

about to take off from the deck of an aircraft carrier (Number 88 - the Naval War buffs will be able to tell which American carrier that is, no doubt). At the bottom of the screen appear the number of lives left, your score, and the high score, as well as a joystick that pokes up and moves as you move the real joystick. Cute but useless.

No sooner have you flown over the carrier's bridge than the action begins. The first enemy attack wave comprises about five or six helicopters, and a couple of missiles. The helicopters fire at you, and you must return fire whilst trying to avoid their bullets, and the missiles. The tendency at first is to duck right into the path of oncoming bullets and disappear in a red fireball, wasting one of your five lives.

After the helicopters come more helicopters, then five delta winged jets, flying in a vee pattern. You must destroy all of these to collect the extra weapon icon. This is fairly easy really. If you survive the jets, you get another round of helicopters, which are best disposed of with a smart bomb, by hitting the spacebar (You get another smart bomb for every 10,000 points scored). Then another five jets, with another extra weapon.

Next comes the enemy fleet. You have to come in low, dodging the fire of several small patrol boats. The extra weapon is handy here - you get to fire three missiles at once. By holding down the fire button, you can also use air to surface missiles, but I never manage to hit anything with these. Sink the boats, destroy the radar on a small ship, and it's time to try for the premier target of level One - the radar on the destroyer. This is protected by its own guns, and takes some beating.

If you make it through level One, you commence level Two, which is fought over land. Here there are cities with high rise buildings, and the helicopters are of slightly different appearance, but the gameplay is the same. The enemy patrol boats are replaced by futuristic looking

enemy tanks, some of which appear to be hovercraft. The mission for level Two is to destroy an illegal arms factory which is supplying "Prostat Rebels". Your instructions are to "close it down permanently!"

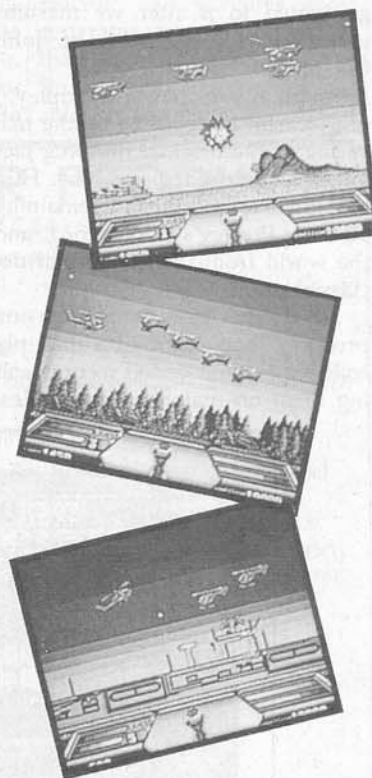
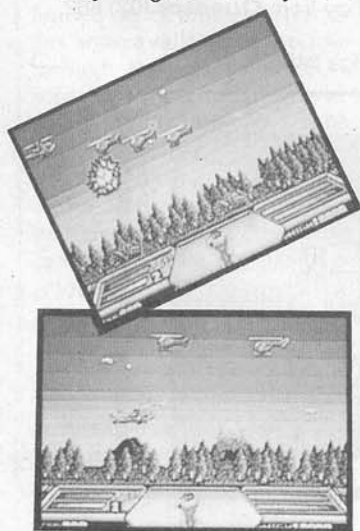
So what's the verdict? Overall *Steigar* is not a bad game, especially if you like fairly unsophisticated blast 'em ups, but it's nothing to write home about. Worth buying, but not outstanding.

Our panel of experts came up with the following totally arbitrary and subjective ratings:

Graphics: 6.5
Sound: 6
Playability: 8
Addictiveness: 7
Instructions: not needed

Review copy from **Mindscape** (02) 899-2277.

RRP Amiga \$54.95, C64 Disk \$39.95, Cass. \$29.95.



JUMPING JACKSON

Phil Campbell puts on his bopping gear to check out the hippest new game on the block ... **Jumping Jackson**.

Jumping Jackson is the coolest game I have ever played. In fact, if it was any cooler I reckon my monitor screen would frost over.

The game claims inspiration from the classic Rolling Stones number "Jumping Jack Flash." The song, complete with slightly modified vocals, plays as the game loads.

Ageing hippies will immediately feel nostalgic. It almost brought a lump to my throat, and it wasn't diced carrot. After all, this was the second song on the repertoire of my garage-quality rock band. We graduated to it after we mastered the tricky chord progressions of "Johnny B. Goode."

In an awe-inspiring wordplay, *Jumping Jackson* happens to be the male offspring of the original *Jumping Jack*. The kid is a digitised disc-jockey. His noble mission is to find the last remaining copy of Elvis Presley's first record, and save the world from the gloom and doom of classical music.

To do this, he must bounce - or more precisely "bop" - around a tiled playfield collecting colour-coded records and placing them on matching turn-tables. Each

time he bounces on a special tile it changes colour - match four of one colour in a row and the appropriately coloured record will appear. Sounds complex, but you will pick it up in a flash. You can play without even looking at the instructions - it's entirely intuitive.

The best feature of the game is the sound track. You actually have to build it yourself - the game starts in silence, and as each record is placed on its turntable it spins into life. The first produces a drum beat, complete with a neat little roll at the end of every eight bars. The second disc adds a bass line - a standard twelve bar boogie. By the time the rhythm guitar on record three is in place, your foot will really be tapping. More advanced levels feature lead guitar riffs and even vocals - something to look forward to as you play.

On the Amiga version the audio track is digitised, which means you are listening to real instruments, sampled and re-produced in almost hi-fi quality. It's a treat.

Jumping Jackson himself is best described as a ball-shaped blimp. That doesn't stop him from being a cool dude,

which is a relief for those of us in similar shape. His mop of tousled hair changes colour each time he bounces on a colour coded tile, a useful feature, as the size of his bulbous waist makes it hard to see the floor underneath.

The cartoon style graphics are bright and breezy, with an up-beat feel. Every now and then Jackson finds a nicely drawn bottle of coke or a hamburger - good for bonus points and a snack. His enemies include rambo-style saxophones and violins, making a stand on behalf of good ol' classical music. Bump into one and you'll explode in a series of Batman-style biffs, oofs and zaps.

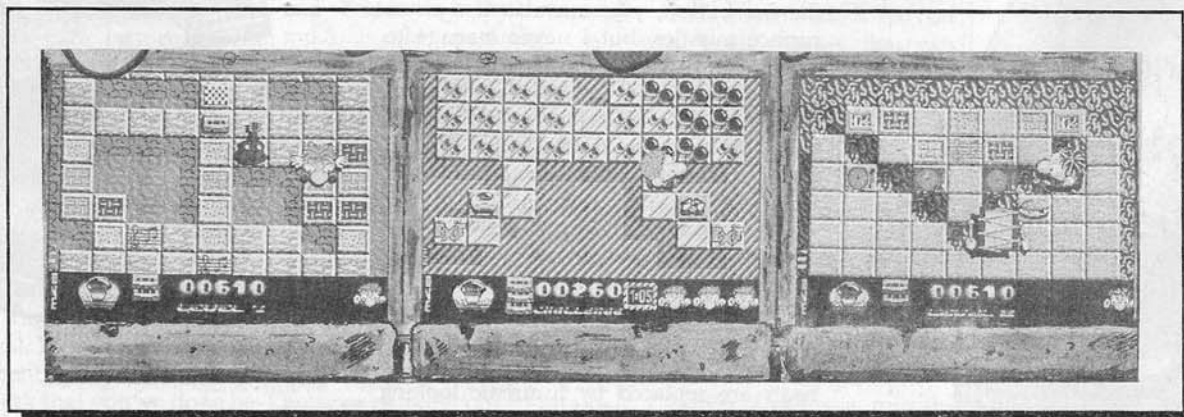
Animation is smooth and rhythmic, with Jackson bouncing precisely in time with the music. Game control is simple and precise, offering a choice of joystick or cursor keys to steer JJ around the playfield.

Jumping Jackson is a thoroughly enjoyable game, without even a hint of violence. It is easy to learn but frustratingly difficult to master, and programming is excellent in every department. If you really want to get down and boogie, *Jumping Jackson* is the game you've been waiting for.

Rating Overall: 79%

Review copy from **Questor** (02) 662 7944.

RRP Amiga \$49.95.



Bad Company

*Is **Bad Company** really bad? Tony Smith investigates, and finds that it's just the opposite ...*

BAD COMPANY COMES with an extra card for Amiga owners, stating that this game uses the full overscan screen. Hooray! It's good to see game makers using the full screen, it's also good that the games are now being 'tricked up' to work on the Amiga's superior system. We have put up with less than our available colours and sounds for too long, due to the fact that most games are developed on the inferior Atari ST and ported across to the Amiga. But at last things are starting to change, and the wait has been worth it. *Bad Company* uses the Amiga as it was meant to be used - loud rock music, colourful screens and fast action.

Waiting time between games is at a minimum and there is a wide variety of options available as your skill increases to keep the interest level up. Logotron is one company which has done its homework and removed most of the 'unpopular' features of games in general, and the result is a fast-paced, colourful, noisy and difficult game. Fancy loading tunes and pictures are cool, but after 20 or 30 times they get tedious and waste a lot of disk space. *Bad Company* is memory resident after loading, which means there is very little delay between scenes and no long waits while the disk is accessed.

First choice is the players, 1 or 2, then

each player chooses his trooper. Eight troopers are available, from Lance 'flash' Gordon to Bruce 'maniac' North with a couple of females thrown in for good measure (no offence ladies, they may not be as strong as the men but they make up for it with agility.)

One of the troopers is a 20 year veteran, another is lucky to be alive after losing his lower jaw in an incident. The plot is simple: "Destroy the alien filth that inhabits the Nu-Worlds." "We just do the dirty work." "We do the killing." "This is the way we were made, to kill, no mercy, no surrender!" To think I used to go on peace marches!

After choosing one of the four worlds, a short flight takes you to the surface to a scene reminiscent of *Space Harrier*. Smoothly scrolling landscapes and detailed enemies coming at you from the screen firing bolts all the while. Easy for the first five seconds, it soon becomes necessary to duck, weave and shoot. Droids come at you from the distance with a realistic 3-D effect, first singly, then in groups of up to four, flying creatures line you up for bombs and if you don't keep moving they hit you every time. All is not bad, however, the mother ship drops by and lowers four pods to the ground occasionally, these travel at

frightening speed towards you and must be shot to gain the weapon within.

The Newstar SK Turbo, the Marsblast Widerim Pro, the Farnham P111 Megadeth and the Zarman T90 Killomatic are the weapons dropped. These weapons can be boosted by finding special canisters marked with lightning bolts. Your own energy can be replenished by standing in the energy fields which are scattered around the landscape.

Not all troopers can carry all weapons - some are too heavy for the female troopers so they can carry lighter weapons and use their agility to blaze a path for a stronger but slower male companion who can use brute force to overcome the enemy. Tactics play an important part in this game with the wide variety of options offering good scope for experimentation.

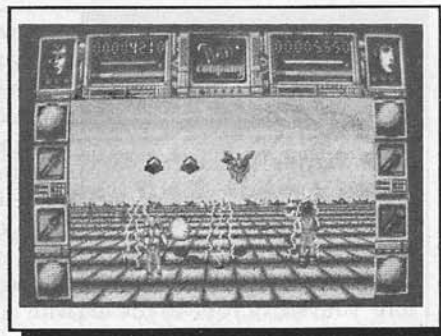
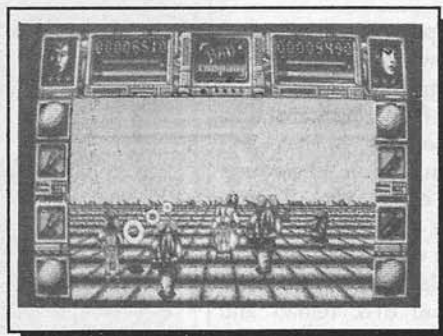
Of the four worlds, the first is the easiest but offers no bonus, beating this world is more like a practice game. Other worlds offer large bonuses but the difficulty level is increased accordingly up to several hundred thousand credits for the fourth world.

Bad Company is an excellent shoot-em-up, very difficult, fast, colourful and noisy with no wasted time. It will keep you glued to the screen for quite a while - and that's what it's all about, isn't it?

Review copy from **Mindscape** (02) 899-2277.

RRP Amiga \$69.95.

□



QUICKSHOTS

A first glance at new games ...

Vortex

Amiga

● Here's a game with a real twist! As usual, mankind has stuffed things up - in trying to harness new sources of energy from black holes, it appears that we've ripped a huge hole in the very fabric of space and time. Your job is to fix it!

Game control is by mouse only, but the system works well - as you move the mouse, it guides a colourful ball-shaped ship around an oval shaped playfield. The idea is to avoid the swirling vortex in the centre, while forcing anti-matter blobs into the side walls of the energy field by

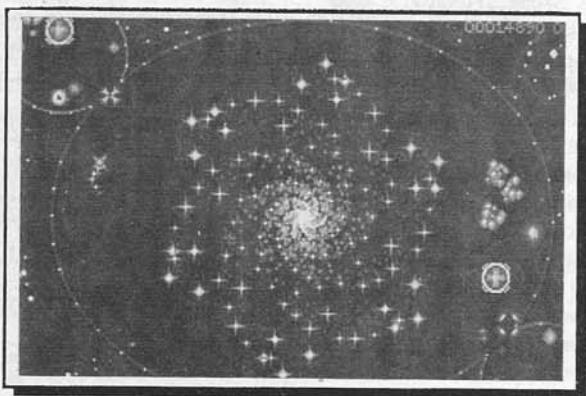
crashing into them. It's a simple enough idea - sort of *Asseroids* in reverse - and its fun to play.

Graphics are lovely, with multi coloured swirls everywhere. Sound is good too, with the option of directing the sound track to an external MIDI keyboard. Sounds great with my Roland D-10!

All in all, a very promising game from Canada's Visionary Design, distributed by Patronics. (02) 748-4700. □

Quick-shot Ratings

Graphics: 7
Sound: 8
Instant addictiveness: 6
Long term prospects: 7
Overall - 73%
RRP \$39.95



X-Out

Amiga / C64

● Playing to rave reviews all over the world, X-OUT is a top shoot-em-up. It's certainly fun to play, with classy graphics and tough gameplay. Before you start, you've got to configure your ship - choose

your weapons and the type of craft you wish to command.

The graphics are highly detailed - lovely backgrounds, brilliant enemy sprites and smooth animation. The sound track is classy too. There's only one problem. X-OUT gives you only one life - blow it, and it's back to the start, with a full disk reload and ship configuration sequence

Castle Master

Amiga

● Hot from the copying machines at Domark comes *Castle Master*, latest in the series of Freescape 3-D super-games. I love this stuff! The 3-D action is all but real, with fast solid-filled vector graphics creating a world so chunky you could carve it! Fair dinkum, once you starting stroll-

ing round the haunted castle in this one, you'd reckon you were there. In all, it's very similar to the excellent *Total Eclipse*, which stuck you in an Egyptian pyramid. If you loved that one, then you'll like *Castle Master* as well.

Available from Questor (02) 622-7944. RRP \$59.95. □

Quick-shot Ratings

Graphics: 8
Sound: 7
Instant addictiveness: 8
Long term prospects: 8
Overall - 81%



to sit through. Sure, it's fun the first time - but frankly, I haven't got the time to mess around with games that give me 30 seconds play and 60 seconds waiting time. Stay tuned - by next month I may have got far enough to make it all worthwhile!

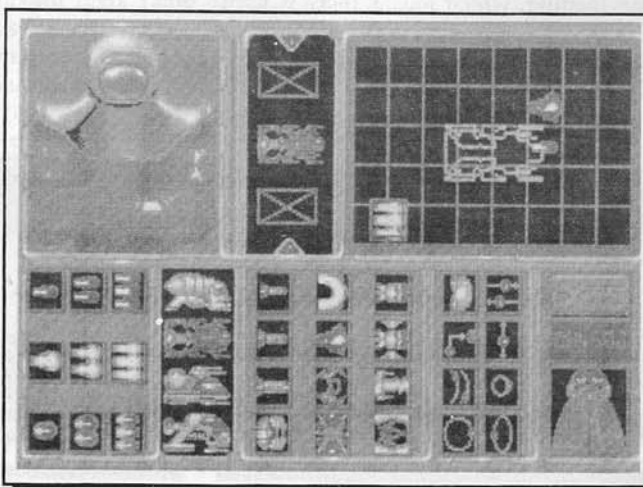
Review copy from Ozisoft

(02) 313-6444.

RRP Amiga \$59.95, C64 Disk \$39.95, C64 Cass.\$35.95. □

Quick-shot Ratings

Graphics: 8
Sound: 8
Instant addictiveness: 5
Long term prospects: 7
Overall - 69%



Operation Thunderbolt

C64/Amiga

● Licensed from the Taito arcade classic, the C-64 version of *Operation Thunderbolt* gives you both horizontally scrolling gameplay and 3-D action. There are swooping jets, helicopters and tanks to fight off, as well as heaps of soldiers to shoot in cold blood.

Graphics are fast but fairly chunky - instead of using multi-layer hi-res sprites for the big guys in the foreground, the programmers have simply enlarged normal sprites, resulting in low resolution stepped edges you can almost climb up. But as I said, it's fast, and there's certainly always something happening on the screen.

Sometimes it's hard to see where you're aiming, because

there's no on-screen gunsight - you just have to watch where your last shot went and correct from there. Score enough bonuses and you'll get a laser sight that makes things much easier. In the meantime, it's trial and error until you get your eye in. Game control is with joystick, Commodore mouse or light gun - I used the joystick.

If death, destruction and mutilation are your thing, you'll probably like *Operation Thunderbolt*. It's a good attempt at capturing the arcade original, and well worth a look.

Distributed by Ozisoft (02) 313-6444 the C64 Disk \$35.95, Cass.\$26.95, Amiga \$49.95. □

Quick-shot Ratings

Graphics: 6

Sound: 6

Instant addictiveness: 7

Long term prospects: 7

Overall - 64%



Cloud Kingdoms

Amiga

● If rolling ball games are your style, check this one out! *Cloud Kingdoms* introduces the world's first "injection moulded eight-way rolling rubber-bottomed software hero." In other words, the cute little guy you're controlling rolls and bounces. Steer him around a precarious kingdom in the clouds - without falling off - in search of a bunch of cosmic crystals. There are giant rolling eight-balls and huge insect monsters to avoid, making this one of the most challenging games I've played in quite a while.

Graphics are nice, sound effects are good, though fairly rare - beaut boings, and a nice

little plummeting whistle for when our hero plunges from his platform. There's a real spate of cute bouncy games at the moment - including *Jumping Jackson*, reviewed in this issue. *Cloud Kingdom* is up there with the best of them. From Mindscape (02) 899-2277.RRP Amiga \$59.95, C64 disk \$39.95. Cass \$29.95. □

Quick-shot Ratings

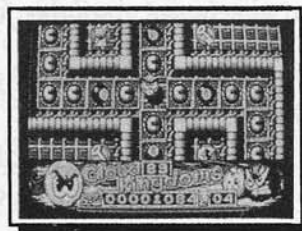
Graphics: 8

Sound: 7

Instant addictiveness: 7

Long term prospects: 8

Overall - 83%



Distant Armies

A History of Chess
Amiga

● This fascinating package will delight anyone even remotely interested in chess. There are ten games in all, each one based on an ancient predecessor of modern chess. Chose from Shatranj, Medieval Chess, Turkish Chess, Decimal Chess, Los Alamos Chess, Courier, Chaturanga, Chinese Chess, Burmese Chess and Byzantine Chess (which is played on a circular board!)

How well does it play? Well enough to beat me every

time, which says very little! Playing Los Alamos Chess I lasted about five moves before I was checkmated. But the games will give even experts plenty to think about, with selectable difficulty levels.

Graphics are nice, with a choice of 3-D and plan-view displays. Pieces are highly detailed, following the authentic styles of the games they are recreating. Best of all, the game is designed to multi-task, and can easily be installed on a hard disk. *Distant Armies* is a game collection no chess fan can afford to miss. □

Quick-shot Ratings

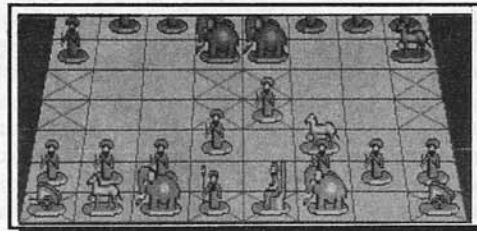
Graphics: 7

Sound: 6

Instant addictiveness: 8

Long term prospects: 8

Overall - 82%



Xenomorph

Amiga

● Repairing a crippled space-ship, obtaining fuel and provisions and reprogramming the ship's computers is all part of the day's work in *Xenomorph* - as well as finding out what happened to the 200 workers who were once stationed on this floating tomb in space. What mystery lurks in the metal labyrinths below? Who knows?

With full first person perspective, atmospheric graphics and full animation, *Xenomorph* is a classy game. Mouse operated icons let you stroll round the ship - a hand-shaped pointer operates buttons, picks up objects and does all sorts of

other useful things. There's plenty to do, in what looks like a long term challenge. Distributed by Mindscape. (02) 899-2277 with a recommended retail price of \$59.95 *Xenomorph* is a definite winner. □

Quick-shot Ratings

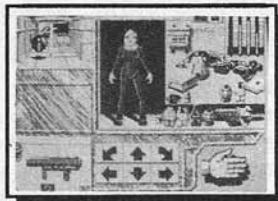
Graphics: 8

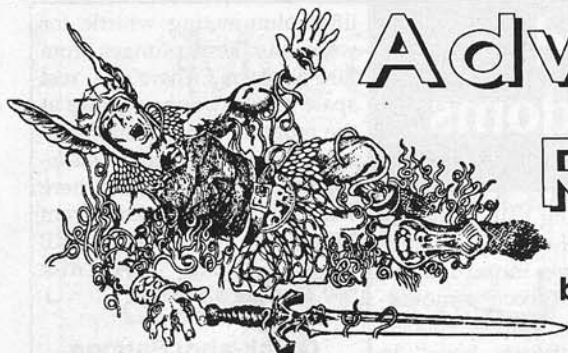
Sound: 6

Instant addictiveness: 7

Long term prospects: 8

Overall - 82%





Adventurer's Realm

by Michael Spiteri



STUCK IN AN adventure? The Realm is here to help you out. Send in your adventure problems and they'll be printed on these pages so that someone can write in with a solution, or I may even be able to help you personally. If it's general hints you are after, special hint sheets are available for a number of games at no cost at all.

The address to write to for all adventure/wargame queries:

Adventurers Realm

P.O. Box 351, Pakenham Vic 3810

(The Realm changed caves over the May - June period, which might explain if you have not yet received replies. - Many apologies!)

Kamikaze Andy is in charge of our role-playing department. For all your role playing queries (not hint sheets!!!) write to:

Kaz Andy, Adventurers Realm

P.O. Box 315, Maddington WA 6109

Free hint sheets

● The following hint sheets are available (pick any four - and only four!) at no cost at all (however you must include a stamped addressed envelope). Write to P.O. Box 351, Pakenham, Vic 3810.

- Bards Tale 1,2,3
- Zork 1,2,3
- Faery Tale
- Hitch-hikers Guide
- Dracula
- NeverEnding Story
- Fish
- Pawn
- Hampstead
- Pirate Adventure
- Adventureland
- Borrowed Time
- ZZzzzzzz

(Wanted! Hobbit hint sheets have gone walkabout!!)

Note: All mail to any part of the Realm must include a stamped-addressed-envelope. ☐

Drakkhen For the Amiga by Infogrames

● USUALLY I SEND role-playing games to Kamikaze Andy in his Dungeon to review, but I liked this one so much I decided to review it myself (sorry Andy!).

So, if you are an adventurer looking for something different, or a role-player looking for something good, then take a look at this soon-to-be classic from France.

A small novel included in the package sets the scene for this adventure. It has something to do with a horrible spell uttered by the last dragon at death's door, and the consequences of this spell on the world as we know it. Somewhere, on a mysterious island inhabited by Drakkhens (fantastic dragon-like creatures), a priest holds the key to breaking this misery which has fallen upon us. The emperor has sent his best priestess, warrior,

scout and magician to the island, with promises of wealth if they succeed, and of course, the 'don't bother coming home if you fail' farewell.

You control all four characters in this very graphical, very atmospheric, and very exciting game. The graphics are mindblowing.

Set on a 3D scrolling terrain, with the most detail you'll ever get to see in an RPG. The creatures you meet just about jump out of the screen at you. You get to cross rivers, deserts, fields, while the sky changes colour as the hours pass. In fact, you could swear you were watching a movie taking place before your eyes.

Your four characters appear on the left hand side of the screen, as well as on the 3D screen. You can tell at a glance what they are wearing and carrying. A

quick push on a mouse button gives you all the information you'll need to know about a character. You can switch between the characters so easily that you could operate them as a team. Like in most role-playing games, each character has his/her own strengths and weaknesses.

The bottom of the screen is made up of a weapon/spell indicator in the left hand corner. Any text is displayed in the centre, while on the right hand side you have action icons.

There are numerous weapons, as well as over 20 different spells. The playing area is vast and seemingly endless. Just watch out for the cross-shaped grave stones. If your disk drive starts whizzing as you approach one you know you are about to meet a mean beastie that is probably about five times the size of all you four characters stuck together.

If fighting doesn't seem to work, try

using your charms. Not all the characters are evil, and the old chin-wag doesn't go astray.

This is a totally interactive game, with excellent playability. I cannot praise the graphics highly enough. The degree of detail and colour is mindblowing, from the perfectly scrolling terrain through to the finely drawn interiors of the castles. The animation scenes are breathtaking. This together with a totally superb ever-changing soundtrack makes the game a real winner.

Don't play the game without reading the manual, as it is bursting with features a review could not do justice to.

Ask for a demonstration. You'll soon realise why it is sweeping up awards all over Europe. I'm sure Kamikaze Andy will admit that this is one game that has to be played whether you are into adventure games, role-playing games, even action games!

A lot of you are probably saying Mike's gone totally whacko over a game again. Well you're all right! The French can't stop bringing out the classics. I'm sure you'll all agree... this time.



Verdict: It's a pity they didn't write *Lord of the Rings* like this!

Rating out of 100: **99**

Distributed by **Questor** (02) 662 7944. RRP \$59.95. □

Problems, problems, and more problems (or the Troubled Adventurers Dept)

● **Michael Gibbs** of Hackam West in South Australia has been playing *Batman*. He is presently stuck in the Axis Chemical Factory. Can anybody help Michael?

Next on the list is Ben Del Fabbro, another South Australian. Ben is stuck in a number of games. Firstly *Zak McKracken*, a) How do you get Zak up to Mars, b) How do you get past the force field? c) Where is the yellow crystal? Then in *Temple Curse*, how does Ben open the gate at the bottom of the steps. Finally, in *Last Planet*, where is the scrambled newspaper?

Gary from Sale in Victoria wants to know how to get to the noise behind the wall in the cell. He has been through the manor but cannot get to it. Well, that's all good and fine, but Gary, please let us know what game you are playing!!

The adventures in the Commodore Pro-Pack are really giving the Realmers a headache. In particular, Stuart George of Springvale in Victoria. In *Island of Spies*, what do you do with the lady (!), and how do you get through the swamp? Then in *Last Planet*, where is the map, and how do you destroy the shack? (Why

not ask the B-52's!) In *The Temple Curse*, how does Stuart cross water?

Mitchell Rashbrook is turning out to be a hot adventurer (check out *Clever Contacts*!). However, even the hot ones get stuck every now and then (Quick note to Suzanne Parkes - I'm still working on your *Jinxter* problems!). Mitchell is having problems in *Ooze*, getting light seems to be quite hard in the torture chamber and the secret hole. Then in *Scary Mutant Space Aliens From Mars*, Mitchell wants to know how to fly the spaceship.

Another adventure veteran who is stuck in a few awful places is the one and only David Lear of Flagstaff Hill, in, once again, South Australia. In *Lords of Time*, putting out a candle in an ice cave is becoming quite hard to do, as is trying to cross a frozen lake. Roman Eureka is hiding money somewhere to buy horses and chariots for the big race, maybe the guard at the palace is hiding something! Finally, in *Aztec Tomb Revisited*, what is the wording to be able to look under the bird's picture at the start of the game as directed by the sign near the temple. (Phew! Try

saying that in one breath!).

South Australian adventurers are stuck in all sorts of places this month. M.McDonnell of North Plympton wants to know where to find the tourist guide for the barbarian in part 2 of the *4th Protocol*.

In fact, the South Australians are so stuck that not even *Clever Contact* Dorothy Millard could help this poor fellow out. M.T Mitchell of Woodville West is desperately stuck in *Bloodwych*.

1. What spells opens locked doors?

2. In Level titled Tower of the Moon, after using tan and bluish gem, how do you open the doors?

3. What use is the green button before the doors leading up to the Eye of the Serpent level.

Hmmm, toughies!!

Meanwhile, Queenslander Aaron Souter would like some general hints for *Kings Quest III*.

Stefan Lamont of Ballarat North in Victoria wants to know how to find the first key in *Kings Quest II*. Then, in *Space Quest II*, Stefan would love some general tips to get him started. Similar problem in *Police Quest II* - how does he get past the opening screen! □

Help, Help and More Help (or the Smart Adventurers Dept)

● Many thanks to all who helped out troubled adventurers!!!

● **Game:** Blacksilver

● **For:** Shelley Duval

● **From:** Ross Turner & Mark Smith

● **Help:** Complete the Island Cavern, give item to OWL temple seeker, go back to castle and see SERAVOL and KING, get the

climbing gear from owl and go nw to the Taragas Mines. After the mines comes the Citadel (you need the Lute and Storming gear) about this time buy a raft and go to the Eagle Temple. The Kings Staff is in the Marthbane Tunnels (Secret NW corner).

● **Game:** Mars Saga

● **For:** Kim Brown

● **From:** Ross Turner

● **Help:** Break into the Controller's room in Progeny to find out about Procenium. You'll also need to meet the nomads to get the finder. Then see Cybil Graves in Primus. Then go to the hospital and the University in Progeny. Cane will set your finder for the Volcanic vents north of Parallax, entry to Procenium.

● **Game:** Space Quest I

Adventurer's Realm

● **For:** David Marjanovic
● **From:** Noel McAskill, Mitchell Rashbrook, and Shalom Baker.

● **Help:** Get past laser beam by using glass found near crashed pod. To kill Orat, throw can but do not hit enter. Enter cave and hide behind rocks - then hit enter. Cartridge is needed at a later stage of the game.

● **Game:** The Pawn
● **For:** Walter Brank
● **From:** Noel McAskill
● **Help:** To cross red line you have to get rid of the wristband and drop everything.

● **Game:** Jinxter
● **For:** Walter Brank
● **From:** Noel McAskill
● **Help:** Freeze oil bottle with walrus charm by typing oojimy fluid.

● **Game:** Ring of Power
● **For:** Mark Bilney From: David Lear
● **Help:** To get past pirate, drop rum. To get past giant, drop ball.

Zorker of the month

● Yes, back due to popular demand. This time the award goes to Super Granny Mrs J. Nelson, who wrote the following amusing letter...

Dear Michael

● I am one of your 'older' adventurers, a 66 year old grandmother, (6 teenage grandkids), and I love adventure games, specially the older all-text type. Although I spend many hours in the magical 'underground' world that only adventurers know (probably that accounts for my white hair), I've only managed recently to get right to the end of my first adventure. Before I bought the C64, I had a much loved Vic-20 and my love of adventure games began with four of Scott Adams' games of which I actually managed to solve two, (with help, I must add, from adventure columns). The dear old Vic-20 has been passed onto a grandson who loves it as much as I did, and it is still going strong.

I have a collection of A.C.A.R. from almost its beginning when it was just A.C.R., and soon

● **Game:** Zak McKracken
● **For:** Barbara Scott
● **From:** Stuart George
● **Help:** Use the codes on mars. Use the ladder on the door with three dots. Push the dots in sequence to open it. Push the sphere to open huge door. Negotiate maze to find map room. Draw the markings on the sphinx leg to gain access.

● **Game:** Shadowgate
● **For:** Andrew and James Dickson
● **From:** Ross Davis
● **Help:** 1. The rope cannot be moved. However if you say EPOR (rope backwards) you will be able to use it.

2. The object that fits in the secret hole is the sapphire ring. Get the flute first. You must give King Doogan the sceptre as well or nothing will happen.

3. The staff with the serpent is essential to complete the game. Later you must collect an orb and golden thorn. Operate each object on the staff...

4. You must wear the gauntlet to get the flute.

after we adventurers had Adventurers Corner with Adam Rigby. I always read Adventurers Realm first when my A.C.A.R. arrives, thank you for a great column, and all the helpful clues you print.

Do you still hate and despise Zorkers? I haven't seen any mention of them for a while. Maybe I am the last poor soul still trying to defeat the Wizard of Frobozz in Zork II.

MS: Well Mrs Nelson, if I ever did despise Zorkers, I don't anymore, not since I received your letter. Still, only a Zorker could take 66 years to solve Zork I. I hope the hint sheet will get you past the last problem in Zork II. □

Realm's Clever Contacts.

● Three new Clever Contacts to add to our list (which will be printed in full in a few months).

● **Name:** Stefan Lamont
● **Address:** 209 Landsborough St, Ballarat North, Vic 3350
● **Help offered:** Kings Quest I,III, Lei-

5. To get past the cyclops, remember David and Goliath.

● **Game:** African Safari
● **For:** Richard McNair
● **From:** Steven Blunt
● **Help:** To stop losing the monkey you must make sure you drop the rod before getting on the canoe.

● **Game:** Maniac Mansion
● **For:** Richard McNair
● **From:** Steven Blunt and Mitchell Rashbrook

● **Help:** Give the water from the pool to the plant (use jar). Give the pepsi to the plant, then climb it. At the telescope, use a dime in the slot and then push the right button. Put another dime in the slot then push the right button again. Now you can look through the telescope and you should see the code for the safe. Open the safe and you should find something to put in the video game. The high score is the code for the lab door. □

sure Suit Larry I

● **Name:** Mitchell Rashbrook
● **Address:** 34 Conidae Drive, Heathridge, WA 6027

● **Help offered:** Beyond Zork, Corruption, Faery Tale, Guild of Thieves, Hound of Shadow, It Came From the Desert, Dream Zone, Uninvited, Jinxter, Hitchikers Guide, etc, etc....

● **Name:** Derek R. Monz
● **Address:** 12 Noonan Street, Heatley, QLD 4814
● **Help offered:** Leisure Suite Larry III, Elite, and Millenium 2.2 □

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Ask for Michael.

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